Modern

IMHOGRAPHY:

SKOHNDA DOY DER

this issue

LNA Awarda

LNA Meets April 1-3

3-Color on Newsprint

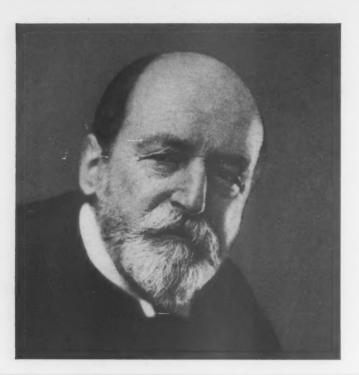
LTF Research Meeting

NALC Completes Plans

Three Color: Part II

APRIL, 1957





HE GAVE YOU THE FACE "WORTHY TO RANK WITH CASLON"

The greatest tribute to a man's work is that it outlives the man himself. And this is eminently true in the case of British type designer and master printer George W. Jones, whose brilliantly conceived Linotype Granjon has been termed "worthy to rank with Caslon for usefulness...sharp enough for publicity, clear enough for a dictionary."*

Granjon combines beauty of color and form with unusual adaptability to new uses. Baskerville and Estienne bear further testament to his unusual talent.

Fortunately, this talent—like so many of the best American and European type designing talents—has been captured and preserved and made readily available to printers everywhere *through Linotype*.

*The Fleuron, A Journal of Typography. No. 5



"Perhaps it was because George W. Jones was one of the finest printers of the early 20th century that he succeeded in designing so useful a book face as Granjon. His scholarship led him to the best 16th century models; his knowledge of modern type-setting and printing methods and of the best use of today's papers and inks, surely contributed to his awareness of what letter forms would print with distinction and without peculiarity. In Granjon he achieved a face which can be used successfully for books of diverse subjects and can be read tirelessly for many hundreds of pages."

M. B. GLICK, Director of Production The Viking Press, Inc.

Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, N. Y.

Set in Linotype Granjon and Spartan families



'Rol

and

grap

rou heco ints lead office, the lepartment

aving Re eadquo echanic hey kno acked be ervice, h ost of keep uality.

nd the

ay afte

ameram

ility of th

nat spee

hey like

rated . .

ruction :

rom buil

ind out I antages atural g

Porter

sk the R

or the w

Agencies: Atlanta, Boston, Chicago, Cleveland, Dallas, Los Angeles, New York, San Francisco. In Canada: Canadian Linotype, Limited, Toronto, Ontario

LEADERSHIP THROUGH RESEARCH

'Roberts & Porter service and Lanston equipment make the natural graphic arts combination!"

You hear comments like this from graphic rts leaders everywhere...from the front ffice, the camera room, the plate-making lepartment.

fou see, lithographers who specialize in uality work recognize the advantages of aving Roberts & Porter as sales and service eadquarters for Lanston Monotype photoechanical and plate-making equipment. They know that this precision equipment, acked by that long-famous Roberts & Porter ervice, helps the men in the shop make the most of their talent, skill, and experience—keep costs under control and maintain quality.

nd the men who work with this equipment ay after day sing its praises. For example, ameramen like the wide-open accessility of the M-H Precision Overhead Camera hat speeds copy-loading and adjustments. hey like the way this camera stays califated... the way the torque-tube contruction so completely isolates the camera om building vibrations.

ind out how you can benefit from the adantages that come your way from the atural graphic arts combination of Roberts Porter service and Lanston equipment sk the Roberts & Porter branch near you or the whole story.



A. H. Schmitz, Vice-president in Charge of Production, Einson-Freeman Co., Inc., Fairlawn, New Jersey, was "pleased to hear that R & P now is sales and service headquarters for Eanston."



Expert craftsmen like Cameraman Jim Heier, Fine Arts Lithograph Co., Kansas City, Mo., like the wideopen accessibility of the Lanston M-H Overhead Precision Camera . . . like the way it stays calibrated.

ROBERTS & PORTER

INCORPORATED

General Offices: 555 West Adams Street, Chicago

NEW YORK 622 Greenwich St.

> BOSTON 88 Broad St.

DETROIT 1025 Brush St. **BALTIMORE**5 South Gay St.

CINCINNATI 229 E. 6th St.

KANSAS CITY 1434 Wyandotte St. PHILADELPHIA
1205 Hamilton St.

LOS ANGELES 920 E. Pico Blvd.

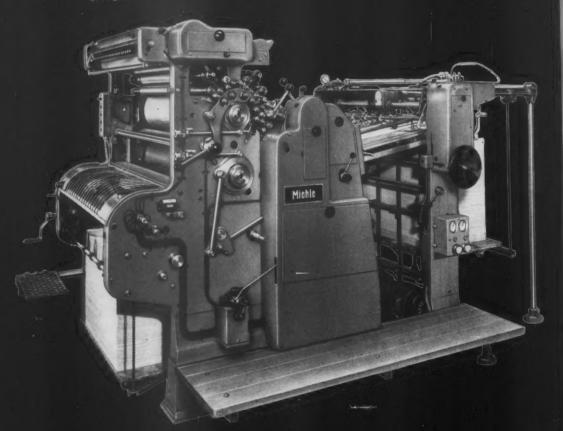
CLEVELAND 1825 East 18th St. SAN FRANCISCO 1309 Howard St.

MILWAUKEE 1533 N. Jackson St.

Miehle

From coast to coast, more Miehle 29 and 36 Offsets are being installed than any other presses of comparable size. They are the presses that carry the load—and earn the profits—in plants which place the most exacting demands on small offset equipment.





Performance is the reason...



COVER

Oh to be at the Greenbrier, now that April's there . . . to paraphrase the old poem. April is tulip time at the White Sulphur Springs, W. Va. resort, as LNA members will learn w. Fa. resort, as LNA memoers will learn on their arrival for the 52nd annual convention. However, there's a lot more than tulips in store for LNA, as pointed out in a special section in this issue dealing with the LNA Convention, starting on page 51.

> WAYNE E. DORLAND Publisher

HAMILTON C. CARSON Editor

FRANK T. HUMMLER Associate Editor

RALPH DORLAND Advertising Manager

> ROBERT F. GARTY Midwest Manager

ROGER APPLEBY Eastern District Manager

> · CLIFFORD LINDEMAN Circulation Manager





Feature Articles

reature Articles	
The True Basis for Masking: Part III	48
Special LNA Convention Section	51
Guest Editorial	51
LNA Convention Program	52
7th LNA Competition Winners	55
Rochester Polychrome Does 3-Color on Newsprint	60
Three-Color Direct Separation: Part II	64
NALC Plans Program for May Meeting	69
Keeping Pace (Conclusion)	71
PIA Rotary Forms Section Discusses Offset	73
LTF Research Committee Meets	75
NAPL Proposes Questions for Management	76
Departments	
Letters To The Editor	45
Fditorial	47
Photographic Clinic	85
Through the Glass	87
Metal Decorating Section	89
Technical Section	95
Technical Briefs	96
Litho Club News	100
News About The Trade	104
Meeting Calendar	119
Equipment Supplies Service	144
Local Buyers Guide	161
Classified Advertisements	163
Index to Advertisers	167
Tale Ends	168

MODERN LITHOGRAPHY

VOLUME 25, NUMBER 4 SUBSCRIPTION RATES: One year, \$3.00; two years, \$5.00. Canada and Pan America, one year, \$4.00; two years, \$7.00. Foreign, one year, \$9.00; two years, \$15.00. Group subscription (U. S. only) Four or more entered as a group, \$2.00 each. (May be sent to different addresses.)

SINGLE COPIES: current issue: \$.50; all back numbers \$1.00. Postage and handling charges for foreign countries on single copies: \$1.00. Claims for missing numbers not allowed if received more than 60 days from date of mailing. No claims allowed from subscribers outside U.S. because of failure to notify Circulation Department of change of address, or because a copy is "missing from files."

PUBLISHED MONTHLY on the 5th by Industry Publications, Inc., Publication office:
Box 31, Caldwell, N. J. Advertising rates made known on application. Closing date for copy — 10th of the month preceding month of issue. Second class mailing privileges authorized at Caldwell, N. J., with additional entry at New York, N. Y.

Address all correspondence to Box 31, Caldwell, N. J.
Change of Address: Allow 30 days. Give old and new address.

Address all correspondence to Box 31, Caldwell, N. J.



PRONTO OFFSET INKS and Whippel LETTERPRESS INKS mean extra profit for you and extra satisfaction for your customer.



EWIS ROBERTS, INC.

NEWARK 5, N. J.
BRANCHES AND DISTRIBUTORS IN 20 CITIES



7

ADVANTAGES

of precision-printing with

VELVA-TONE offset blankets

No other offset blanket can match them—these better presswork features that make Velva-Tone blankets top choice for today's ultra-precision, high-speed offset printing:

- 1. Sharpest impressions with perfect register.
- 2. Super-resistance to smashing.
- 3. Insurance against embossing and ply separation.
- 4. Fast comeback after each impression.
- 5. Quicker make-ready through minimum patching.
- 6. Protection from shimmy and fabric ghost.
- 7. Excellent printing quality with no low spots.

There's no mystery about these better-printing advantages. VELVA-TONE offset blankets are designed by Goodyear rubber specialists—compounded of premium-grade materials including the famed oil-resistant synthetic rubber — CHEMIGUM — and built to ultra-precision standards.

For the rest of the story, contact your distributor, or write Goodyear, Printers Supplies Sales Dept., New Bedford, Mass.

PRINTERS SUPPLIES

GOODFYEAR

THE GREATEST NAME IN RUBBER

Chemigum, Velva-Tone—T. M.'s The Goodyear Tire & Rubber Company, Akron, Ohio





ACCENT ON PERFORMANCE

With today's tough production schedules to meet, the printing paper you choose must give outstanding performance. And performance depends on many things—dimensional stability, ink receptivity, strength, foldability and a host of other qualities. You'll find all of these qualities combined in a precise and careful balance over the entire grade line of Kimberly-Clark's Coated Printing Papers. You'll find, too, that Kimberly-Clark papers are remarkably uniform from pack to pack, from shipment to shipment. It will pay you to compare Kimberly-Clark Papers in any way you choose—including their cost. We're as close to you as your nearest distributor.

Everything comes to life on Kimberly-Clark Papers

for Modern Lithography . . . Prentice Offset Enamel Lithofect Offset Enamel • Shorewood Coated Offset Fontana Dull Coated Offset

for Modern Letterpress . . . Hifect Enamel • Crandon Enamel • Trufect Coated Book • Multifect Coated Book



COATED PRINTING PAPERS



Kimberly-Clark Corporation · Neenah, Wisconsin



The Quality Name in ...

Lithographic Chemicals

Manufacturers of



Graphic Arts Chemicals

Enthusiastic trade acceptance of RBP Premium Chemicals is the encouraging factor in our continuous research to produce better products for offset platemakers.

Have you tried R-56, the protective Silicone Hand Cream?



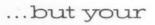


CHEMICAL and SUPPLY, INC.

1640 N. 31st Street

Milwaukee 8, Wisconsin

the "tear test" tells you something about paper...



PAPER MERCHANT

everything about paper

Printers, working with paper every day, know a lot about it. But special jobs and problems are bound to come up. Then's the time to call your Nekoosa Paper Merchant. It's his job to recommend the right sizes, weights, colors, finishes . . . and be helpful in other ways. Remember: you, the printer, and your Nekoosa Paper Merchant are a team!



NEKOOSA BOND . NEKOOSA LEDGER . NEKOOSA DUPLICATOR . NEKOOSA MIMEO
NEKOOSA MANIFOLD . NEKOOSA OFFSET . NEKOOSA OPAQUE
NEKOOSA MASTER-LUCENT and companion ARDOR Papers



ATF Chief 15

A small offset press that opens up bright new opportunities in the $11'' \times 15''$ size range

Never before has a small offset press offered so many advanced operating features. Never before has a small press been so far ahead of comparable equipment in every way. Never before has there been such an ideal press for small jobs...or a better "earn-as-you-learn" method for branching into offset.

For the ATF Chief 15, though small, is truly a printer's press. But prove it for yourself. Check off the features, all of which have been proved practical in field tests in commercial plants, and see if there's anything like the Chief 15 in the price range.



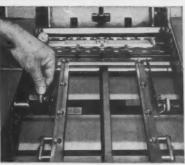
AMERICAN TYPE FOUNDERS

200 ELMORA AVENUE, ELIZABETH, N. J.

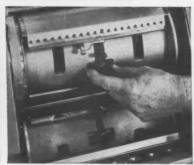
FOR INCREASED OUTPUT AND FAST CHANGEOVERS



Unique interchangeable ink units provide fast color changes. The entire inking unit of the ATF Chief 15—fountain and 10 inking rollers, including 2 form rollers—can be removed and replaced in two minutes.



Two side guides—with micrometer control—are supplied. You can do work-and-turn jobs on the Chief 15. A lever lets you select the right or left side guide, or both. Micrometer adjustments on each for precision work.



Vernier wheels make mounting plate and blanket fast and easy. A single Vernier wheel for each cylinder applies firm, even pressure across the full length of the blanket and plate, eliminating the problem of distortion.

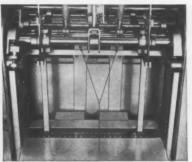
FOR OPERATING EASE AND FAST, PRECISE ADJUSTMENTS



A single control sets side guides, tapes and paper guides . . . while the press is running. You can move either or both side guides and paper guides simultaneously—and the tapes follow. Handles sheets 3" to 11" wide.



You can adjust air blowers while press is running. Because the controls are above the feed pile, you can adjust side air blowers up and down and for angle of blast without slowing or stopping the press.



You can move the paper separators in or out ... to suit the stock, by very simple Allen screw adjustments. You don't have to bend or form them, as on other feeders.

FOR PRECISION WORK, EASIER UPKEEP AND LONG PRESS LIFE



Extra wide dampener rollers...full half inch wider than normal...eliminate build-up of ink on plate edges, on the exposed surfaces of the plate or blanket cylinders...thus preventing troublesome "mourning bands".



Seven tumbler grippers provide perfect sheet control...hold sheet in position on impression cylinder through the printing cycle. No adjustments needed for variations in stock. No upper and lower feed roll to adjust.



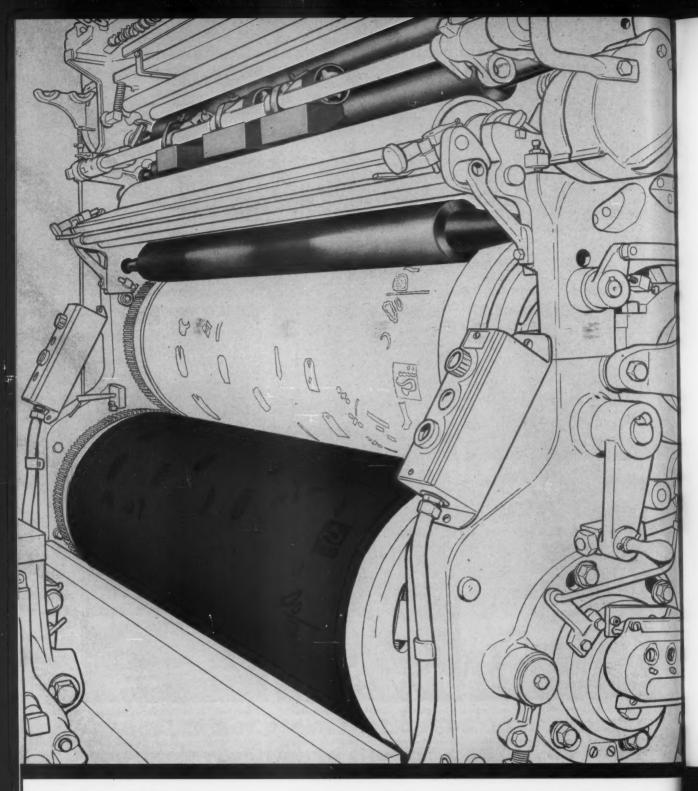
Paper feed can be adjusted to straighten image. When image is not straight on plate, you can change the angle of the sheet simply and quickly to compensate. This eliminates "twisting" the plate for register.

PLUS OTHER OPERATING AND CONSTRUCTION FEATURES SUCH AS...

Flat, tilted feed board for easy stock loading... Ball-type paper guides on the conveyor... Single lever control of ink and dampener form rollers... Heavy-duty cylinder shafts

... Nickel-plated blanket cylinder for easier cleaning... Chrome-plated plate and impression cylinders... Transfer cylinder delivery system... Built-in static eliminator.

From feeding to delivery, the Chief 15 is in a class by itself. Write ATF for descriptive literature on its many features. Better still, make a date at your nearest ATF Branch Office to see the Chief 15 in full, productive action. See what it can do for you.



Dayco Gold Seal Red . . . Dayco Gold Seal Black . . . and the new Dayco Gold Seal Green are all members of the Dayco family of fine offset blankets.



Dayco Gold Seal Red



Dayco Gold Seal Black



Dayco Gold Seal Green

Jayco Ro

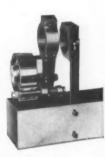
New Dayco Gold Seal-Green Offset Blanket... Sharpens your halftones... Gives new life to colors

In test after test — with coated or uncoated offset papers — it was Dayco Gold Seal Green . . . Dayco Gold Seal Green . . . time and again, that produced the finest offset work. Even a glance shows why this revolutionary new Dayco Gold Seal Green Offset Blanket is superior to ordinary blankets — halftones are sharper, type is cleaner, and colors are brighter and more opaque.

New from the fabric out, the Dayco Gold Seal Green Offset Blanket has a more resilient face which shows faster recovery from smash and resists taking a permanent set. What's more, it won't swell or emboss, and is resistant to oils, inks, and recommended wash-up solutions.

Next time, try the Dayco Gold Seal Green. It's the newest addition—with Dayco Gold Seal Red and Dayco Gold Seal Black—to the Dayco Gold Seal family of fine offset blankets. Look for the Dayco Gold Seal on the back of every one—it's your assurance that you're getting the finest in craftsmanship and materials in the offset blanket you prefer.

For complete details, ask your Dayco Representative the next time he calls, or write The Dayton Rubber Company, Dayco Division, Dayton 1, Ohio.



the Dayco Color Separator

The Dayco Color Separator (only mechanical separator made) eliminates expensive roller-cutting, drastically reduces make-ready time and press time. Lets you print several colors—one time through the press—with splits as narrow as $1\frac{1}{2}$ " and no color mixing.

Dayton Rubber

DAYTON RUBBER COMPANY, Dayton 1, Ohio • 1486 Lakewood Avenue, S.E. Atlanta, Georgia.

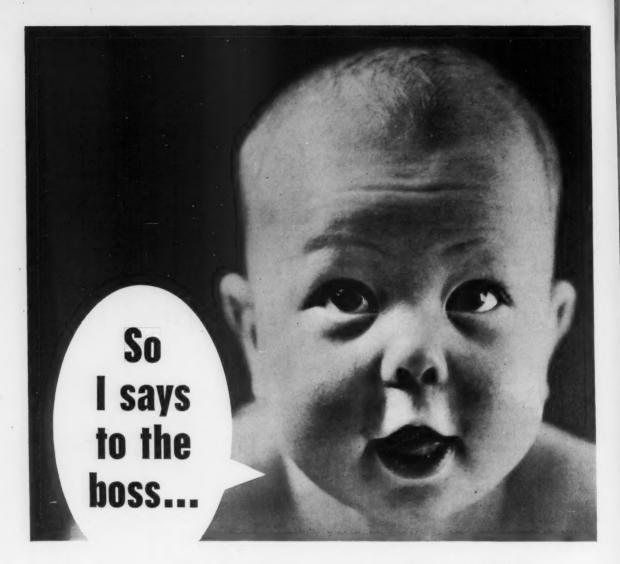
West Coast Distributor, Tillicum Rubber Company, Lacey, Washington.

Jayco Rollers . . . for Offset, Letterpress, Newspaper, Corrugated Boxboard, Gravure, Flexography, Coating, Iraining, Steel Mills. Dayco Offset Blankets. Dayco Fountain Dividers. Dayco Color Separators.



the Dayco Fountain Divider

Ideal for split color and all other fountain uses, the Dayco Fountain Divider is absolutely leakproof, quickly installed, easily adjusted and cleaned. It is sturdily constructed for years of economical service. Fully Guaranteed.



Look! Fine presses deserve fine MERCURY Rollers and Blankets



Man, you can have the world's best presses—but unless they're equipped with the right accessories you will find it tough to get top quality results. Mercury products perform better in *your* shop, because they are tailormade to specifications of the concern who built *your* presses. And to make extra sure Mercury gives you finest results, Rapid Roller technical advisers are always available to help you with special problems.

RAPID ROLLER COMPANY

Main Office and Factory:

FEDERAL AT 26TH STREET • CHICAGO 16, ILLINOIS Eastern Sales Office and Warehouse: 218-224 Elizabeth Avenue • Newark 8, N.J. Today's outstanding paper value!

DOUBLE COATED

Consolidated
Offset Enamels
at No Extra Cost!

Talk about value! Now Consolidated gives you the added performance features of double coated offset at no added cost. High stability...quick ink setting...superior pick resistance...maximum uniformity...brighter color...all the advantages you get only with double coating are yours for not a penny more with high quality, low cost Consolidated Offset Enamels!

What's more, you get these advantages in every grade —PRODUCTOLITH, CONSOLITH GLOSS and CONSOLITH OPAQUE. All are double coated on both sides in one continuous high-speed operation—right on the papermaking machine! There are no extra manufacturing steps—no extra cost.

FREE TRIAL SHEETS! Next time you're running a job, ask your Consolidated merchant for free trial sheets. Then compare performance, results and cost with the offset paper you're now using. Once you see the difference, you'll agree double coated Consolidated Offset Enamels are today's outstanding paper values!



Consolidated

ENAMEL PRINTING PAPERS a complete line for lithographic and letterpress printing CONSOLIDATED WATER POWER AND PAPER COMPANY SALES OFFICES: 135 S. LA SALLE ST. * CHICAGO 3. ILL.



LITTLE BENJY 1 Step Wash-up Solvent

CLEANS ROLLERS FASTER, SAFER, BETTER THAN ANY OTHER METHOD

Try this. A few drops of Little Benjy on a small area of a badly scaled and dirty roller. In just fifteen seconds, wipe away all pigments, glaze, and gum left deep in the roller by ordinary solvents. See how effective Little Benjy can be in removing the toughest scale deposits.

See the results obtained in repeated field tests: reflex blue to pastel yellow in fifteen minutes, under typical pressroom conditions!



We'll supply the dropper, sample can of Little Benjy, and brochure showing actual test results. Don't delay . . . write today.



3300-22 WEST CERMAK ROAD-CHICAGO 23, ILLINOIS, U.S.A.

which offset plate for you? $0 \sqrt{0} \sqrt{0} \sqrt{0} \sqrt{0} \sqrt{0} \sqrt{0} \sqrt{0}$

SMOCTH SURFACE PLATE?

If you use smooth plates you know there are certain advantages: sharp tones, clean lines, good fidelity, no background scumming.

BUT... by the very nature of a perfectly smooth surface there are inherent limitations not found in a grained plate.

GRAINED SURFACE PLATE

A grained surface, too, has certain advantages: wide latitude in ink and water control, no roller skid, clean tones and reverses, long plate life. BUT... even a grained texture has limitations. (In various features a grained plate is superior to a smooth plate, and vice versa.)

HARRIS ALUM-O-LITH MICRO-SURFACED PLATES!

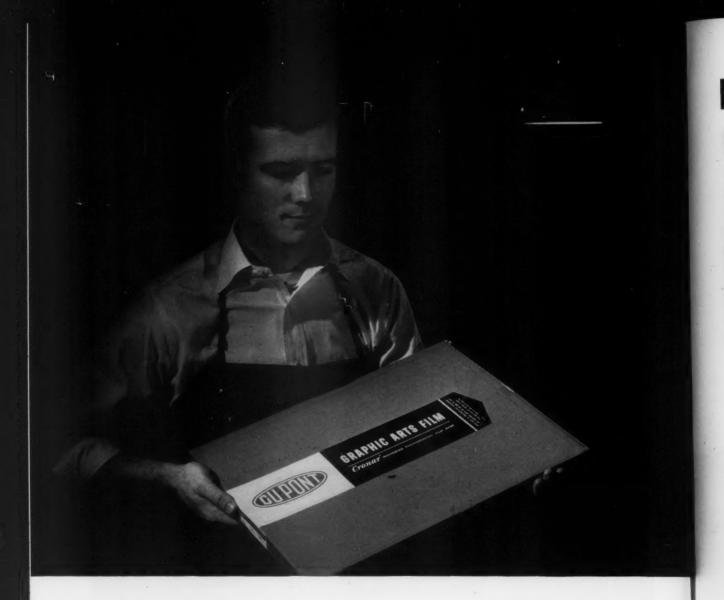
These plates are neither smooth nor grained but actually micro-etched ... combining the advantages inherent in both surfaces. This exclusive Harris Alum-O-Lith feature offers the easiest-to-process, cleanest all-around running surface of any plate on the market.

You may have tried smooth or grained plates . . now try MICRO-SURFACED plates and compare. Write for literature.

HARRIS SEYBOLD COMPANY LITHOPLATE, INC.

278 N. Arden Drive, El Monte, California 5308 Blanche Avenue, Cleveland 27, Ohio

 $(0 \land 0 \land 0$



PHOTOLITH ORTHO A

LITHOGRAPHIC FILM IS NOW ON CRONAR®

"Cronar," Du Pont's new polyester film base, is out of the development and experimental stage. All of our Photolith Ortho A will now be on "Cronar" base,

You may not be able to get as much of this new product as you would like; demand has far exceeded supply, and it may be some time before enough is available. Meanwhile, we recommend that you reserve the new Photolith Ortho A

for those jobs that require the finest definition, the best possible results.

"Cronar" is a new kind of base that outperforms vinyl and acetate in every way. Next to glass itself, Photolith Ortho A on "Cronar" is the most dimensionally stable tearresistant lithographic film you can use. The edges will not buckle because "Cronar" does not absorb moisture—which means faster drying time, too. "Cronar" is almost unbelievably

rugged—it won't crack, tear, or become brittle with age.

Photolith Ortho A on "Cronar"
—another vital contribution by
Du Pont to the lithographer's art.
It's worth waiting for.

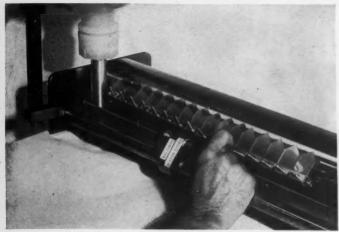
E. I. du Pont de Nemours & Co. (Inc.), Photo Products Department, Wilmington 98, Delaware. In Canada: Du Pont Company of Canada (1956) Limited, Toronto.

DUPONT PHOTOLITH LITHOGRAPHIC FILM



CETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

Here's something *really new* in water stops!



It's the Baldwin® Variable Control Water Stop* for rollers without cloth covering. And it gives you exactly what lithographers have been demanding for a long time: a water stop with variable adjustments to provide positive control along every inch of the fountain roller.

*Patents applied for

Now, you can eliminate experiments with makeshifts snipped out of paper, leather, or rubber. No more sheet-spoiling trial-and-error attempts at water control! No more floods or dry-ups that so often cause trouble when you run small sheets! Baldwin Variable Control Water Stops are easy to install and come in two lengths-8" (\$37.50) and 16" (\$47.50)to fit most standard presses. The flexible "fingers" make it easy for you to adjust water to take care of the demands of any job without the use of tools.

Baldwin Variable Control Water Stops have been field-tested on such presses as the ATF Chief ... ATF-MANN... Miehle 61 and 76... Harris 43 x 59, 50 x 72, 521/2 x 77 and have the unqualified approval of the many lithographers who cooperated in these tests. Use the coupon today to find out how little it costs to equip your presses with these really new water stops that soon pay for themselves many times over in time and paper saved.

And here's the water stop for presses with cloth sleeves!

It's the Baldwin Roller Water Stop whose "wringer" action permits only the amount of water that is just right for a particular job to reach the plate. Remember! Baldwin Water Stops, of whichever type your presses require, are the ideal companion for Baldwin Water Levels: together, they provide the best possible assistance for complete water control.

WILLIAM GEGENHEIMER CO., INC. 80 Roebling Street, Brooklyn 11, New York

I want to know all about Baldwin Water Stops and other Baldwin press equipment for these machines: Cloth-Sleeved

WILLIAM GEGENHEIMER CO., INC. Brooklyn 11, New York

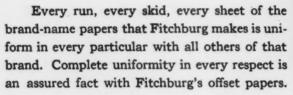
Company.

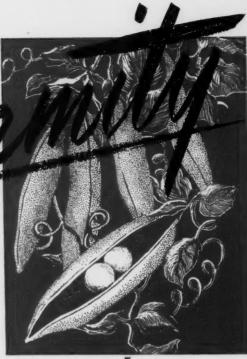
Phone: EVergreen 8-5610

Fountain-Roller

Manufacturers of Baldwin Ink Fountain Agitators · Baldwin Press Washers · Baldwin Water Stops · Baldwin Water Levels

Unitor





Publishers Offset



It is made to meet the specifications of the Book Manufacturers' Institute, so we named this fine sheet PUBLISHERS OFFSET. Dependable performance on the press minimizes down-time and makes PUBLISHERS OFFSET one of the most economical papers in its class a book manufacturer can use. From every standpoint you'll like this clean, bright sheet that is making a splendid reputation for itself.

Write to the mill for sample sheets and complete information about Publishers Offset. No obligation.

Fitchburg Paper Company

MILLS AND GENERAL OFFICES: FITCHBURG 6, MASS.

NEW YORK OFFICE: 250 PARK AVE., N.Y. 17

another LAWSON first.



The LAWSON 55-T-77 CUTTER

Makes Rear Loading Profitable

Another LAWSON first...a 55" cutter with a full 77" back table. Easy to set up for rear loading. Now, while your operator cuts one job, the next lift is being jogged and made ready to go. Patented LAWSON Air Cushion device makes for easy loading.

Cuts sheets up to 55" x 77"... quickly and accurately. Yet it costs much less to install, much less to maintain. Approved for safety by New York State Labor Board.

Patented LAWSON Electronic Spacing Device . . . eliminates hand gauging – gives amazing .002" accuracy. The truly cushioned hydraulic clamp combined with the fast (43 strokes a minute) two-end pull, straightline knife assures a ripple-free cut edge. Straight and true from top to bottom.

In all sizes -39", 46", 52" and 55"-the incomparable LAWSON cutters are delivering unequalled performance... and profits! Ask for full details today.

E.P.LAWSON CO. Main Office • 426 West 33rd Street, New York 1, N. Y.

CHICAGO: 628 So. Dearborn Street

BOSTON: 176 Federal Street

PHILADELPHIA: Bourse Building

Pioneers in Paper Cutting Machinery since 1898



Modern reproductions call for...

ANSCO Polylith Film

Available in two thicknesses, .005" and .010", Ansco Polylith film incorporates a polystyrene base for extreme dimensional stability and is coated with Reprolith Ortho Type B. Emulsion. High-contrast Ansco Polylith is ideal for negative and positive halftone and line copy, monochrome, or color. You'll like its fine dot-etching qualities . . . sharp, opaque halftone dots . . . fine resolving power . . . transparent base . . . and the way it lies flat. Standard sheet sizes and 100-ft.—40 in. rolls, .005" or .010" base.

For maximum density and contrast, use Ansco Reprodol Developer, the fast working, convenient dry powder mix making 2, 10 and 25 gallons of solution. If a hardening formula is desired, use Ansco Acid Fixer, a single-mix, easily dissolved powder in quart to 5-gallon containers.

ANSCO, Binghamton, New York. A Division of General Aniline & Film Corporation. "From Research to Reality"

Ansco...

graphically the finest since 1842

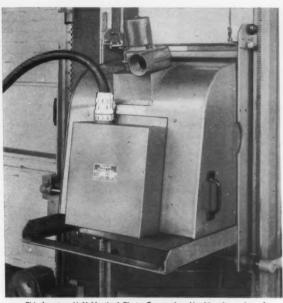
"It's like having an extra photo-composer!"



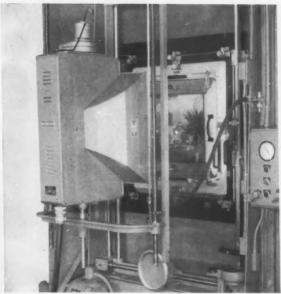
That's a lithographer's reaction to the reduction in exposure time he got when he equipped his photo-composing machine with a Macbeth

Constantarc lamp. You see, he almost doubled his output, got work of consistent high quality, and practically eliminated remakes!

Macbeth Constantarc lamps permit the operator to devote all his time and attention to his work. There are no meters to watch or tap switches to fiddle with in order to compensate for line voltage fluctuations—this lamp actually is completely and constantly automatic-regulating.



This Lanston M-H Vertical Photo-Composing Machine is equipped with a Macheth Constantarc B-IC-L printing lamp. The specially designed housing permits the lamp to be mounted directly on the photo-composer.



Here's a Macbeth Constantarc B-1C printing lamp on a Rutherford RM Photo-Composing Machine. A Constantarc is available for the Rutherford type PL photo-composer, also. Lamp shown has optional exhaust system.

There's a Macbeth Constantarc designed specifically for your photo-composing machine... designed to give you consistently uniform exposures from the first to the last with reductions in exposure time of 50% or more from exposures required with old-style lamps. What's more, there's a reflector designed for every chase size right on up to the largest to assure the maximum degree of evenness with the light confined to the desired area. This means light-loss is eliminated and maximum illumination assured. An exhaust system is available for cooling and to help eliminate dust problems.

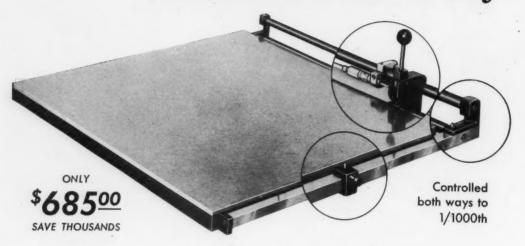
Macbeth Constantarc printing lamps are available on 30 days free trial so you can prove for yourself how they can increase production and reduce costs. Integrated design and construction mean the Constantarc is easy to install on any type or size of photo-composer.

INSIST THAT YOUR NEW PHOTO-COMPOSER BE CONSTANTANC EQUIPPED! USE THE COUPON TO GET THE FULL STORY.

MACBETH ARC LAND COMPANY	MACBETH ARC LAMP COMPANY 141 Berkley St., Phila. 44, Pa. Tell me all the advantages of using a Macbeth Constantarc printing lamp on my photo-composer. Here's the make, model, and size: Name
141 Berkley Street, Philadelphia 44, Pa.	Company
141 Delkiey Street, Filliaucipilia 44, 1 a.	City and zoneState

Chesley F. Carlson

Controlled Accuracy

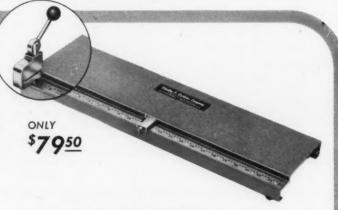


THE CARLSON PHOTO-COMPOSING

SPACER. Accurate to 1/1000th, this Carlson Photo-Composing Spacer does the work of machines costing thousands in stepping multiple negatives or on plates. Utilizing this proven, accurate punch-and-hole system with micrometer control, the Carlson Spacer operates at 4-times the speed of hand stepping—while maintaining perfect dot-for-dot register. Write for full details.

THE CARLSON STEP-AND-REPEAT PUNCH

This is practical equipment for the smaller lithographer. Although this is a fine precision-made, all-steel punch which steps with hair-line accuracy, it costs only a few dollars. The Carlson Punch utilizes our proven punch-and-hole system. It provides lock screw setting of three point optical finder, 24" etched stainless steel rule and self-aligning throat-stop for controlled accuracy with Carlson Master Strips. Write for details.



NOTE: Any time within 18 months after purchasing a Carlson Step-and-Repeat Punch, you may trade it in at full price on a Carlson Photo-Composing Spacer.

Chesley F. Carlson Company

BEN FRANKLIN BUILDING . MINNEAPOLIS 15, MINNESOTA

when you need Chemicals





AKRON, OHIO
Metzger Photo Supply Co. 1081 So. Main St.
ALBUQUERQUE, N. MEX.
Jones Graphic Products Co., 320 Broadway S.E.
ATLANTA, GEORGIA
Southern Graphic Art Supply Co. M & F Supply Co.
AUSTIN, TEXAS
Graphic Studios
BALTIMORE, MD.
Interchemical Corp. 240 W. 1916 St. BOSTON, MASS.
Bridgeport Eng. Supply
Roberts & Porter, Inc.
W. Oliver Tripp Co.
BUFFALO, N. Y.
Interchemical Corp. ROBERTO W. Oliver Tripp Co.

BUFFALO, N. Y.
Interchemical Corp.
CAMBRIDGE, MASS.
Interchemical Corp.
CHARLOTTE, N. CAR.
Coorge R. Relier Co.
CHICAGO, ILL.
Bridgeport Eng. Supply Co., 900 N. Franklin St.
Sun Supply Co., 1215 W. Washington Bivd.
Interchemical Corp.
Western Co.
Herman Willets Graphic Sist. W. Harrison St.
Herman Willets Graphic Sist. W. Harrison St.
Herman Willets Graphic Sist. W. Harrison St.
Sist. W. Sabington St.
Sist. W. Sabington St.
Sist. W. Adams St.

Wainut & Third St. 417 E. Seventh St. Sun Supply Co. Interchemical Corp. McKinley Lithe Supply

Roberts & Porter, Inc. CLEVELAND, OHIO VELAND, OHIO
raden-Sutoblin
ridgeport Eng. Supply Co.
loberta & Porter, Inc.
un Supply Co.
rierchicentic Corp.
1325 East 18th St.
1325 East 28th St.
1325 W. 73 St.
1325 W. 73 St.

Interchemical Corp.
Interchemical Corp.
COLUMBUS, ONIO
COLUMBUS, ONIO
Locar Offset Supply Co., Inc.,
162 North Sixth St.

DALLAS, TEXAS
Chemos Photoproducts
Inferchemical Corp.
Litho Offset Supply Co.
Litho Offset Supply Co. DETROIT, Miterointerchemical Corp.
Roberts A Porter, Inc.
FORT WORTH, TEXAS
General Pig. ink
HAYANA, CUBA
National Paper & Type Co. of Cuba, S.A.
National Paper & Type Co. of Cuba, S.A.
Empederato 410

HONOLULU, T. H.
California link Company, inc.
HOUSTON, TEXAS
HI-Speed Litho Supply Co.
KANSAS CITY, MO.
Ace Composition Supply Co. 2723 Yale St.

Ace Composition Supply Co. 921 W. 27th St.
Cornell & Everett 718 Ballimore Ave.
HOTEE ROCK, ARK.
Southern Lithe Supply
10040 454

Southern Lithe Supply
LONG ISLAND CITY, N. Y.
Sun Supply Co.
LOUISVILLE, KY.
W. D. Gatchel & Sen
LOS ANGELES, CALIF.
Barker Products

LOS ANGELES, CALIF.

Barrier Pricts

California Int. Company
Roberts & Proter, Inc.

General Ptg. Inh
Watter W. Lawrence, Inc.

AEXICO, D. F., MEXICO

Cia Nacienal de Maquinaria Grafica S.A. de C.V.

Esquina Mariane Escobedo y Mar Adriatica 66

MIAMI, FLA.
Dixie Plate Graining Co., Inc.
2951 N.W. 21st Terroce

MILWAUKEE, Wrow.
Interchemical Corp.
MINNEAPOLIS, MINN.
Automatic Litho Supply
T. K. Gray, Inc.
Litho Supply Depot
MONTREAL, Quebec, Consude
Canada Printing Ink Co., Ltd.

Elso Jeanne Mance St.
Elso Jeanne Mance St.
Co., Ltd.

Canadian Fine Color Co., Ltd.

905 Did Orchard Ave.

NASHVILLE, TENN.
Interchemical Corp.
Southeastern Printing Ink, In 801 McGayock St. NEENAH, WISC.

Interchemical Corp. NEW ORLEANS, LA. 834 Natches St. Chemce Photoproducts B34- Natches St. NEW YORK CITY, N. Y. Bridgeport Eng. Supply Co. 11terchemical Corp. Alfred S. Metager 20 Irving Place Roberts & Porter, Inc. 622-628 Greenwich St. J. H. & G. B. Stebold, Inc. 100 Vorick St. ORWOOD, MASS. General Printing Inn B21 Pleasant St.

LITHO CHEMICAL & SUPPLY CO., Inc.

OKLAHOMA CITY, OKLA.
Davidson Sales & Service 423 W. California
Interstate Lithe Plate Graining Co.

PHILADELPHIA, PA. C. A. Edwards, Jr., Inc.
San Supply Co.
San Supply Co.
29 A. Sixth St.
Interchemical Corp.
How Market St. A. Gormandown Avo.
Phillips & Jacobe
Roberts & Porter. Inc.
PORTLAND, ORE.
Zalifarnia ink Company
1206 N. W. Hoyt St.

Laistarria ink Company
PHOENIX, ARIZ.
California ink Co.
ROCHESTER, N. Y.
Interchemical Corp.
ST. LOUIS. MO.

Interchemical Corp.

57. AOUIS, MO.
Rissmann Graphic Arts Supply Co.
2734-16 Postalogal St.
SAIT LAKE CITY, UTAN
California Inin Company 80 S. Secund East St.
SAN ANTONIO, TEXAS Texas Type Poundry
SAN FRANCISCO, CALIF.
California Ink Company

Roberts & Porter, Inc. General Ptg. Ink SEATTLE, WASH. California Ink Co.

Genero:
SEATILE, WADT:
Callernis Ink Co.
SYRACUSE, M. Y.
Interchemical Corp.
1034 W. Fayette ReTORONTO, Ostrario, Camede
Canada Printing Ink Co., Ltd.
Canadian Fine Coler Co., Ltd.
Canadian Fine Coler Co., Ltd.
310 E. 4th 34.

Canadian Fine P. O. Box 82 Pos.

TULSA, OKLA.
Brittco busply Co.
Sitico busply Co.
VANCOUVER, B. C., Canada
Canada Frinting ink Co., Life.
Capato Frinting ink Co., Inc.
Capitol Printing ink Co., Inc.
1812 DeSales Rew, H.W.

WICHITA, KAN.
Davidson Sales & Service 237 No. Main St.
WINNIPEG, Manifeba, Canada
Canada Printing Ink Co... Ltd. 496 Hargrave St.
LITH-KEM-KO REPRESENTATIVES
Mr. Don Grant

Mr. Don Grad Of Control St., Oak Park, Hilmols Mr. Albert R. Materazzi 9804 Avenet Md., Silver Springs, Md. Mr. Raymond A. West 715 E. Valencia Ave., Burbank, Calif. Mr. Charles Wilharm A. La Glemwood Drive, Irving, Texas Mr. John B. Olivier Grave., San Francisco, Calif. Mr. Wm. Stanley Colliston. 2417 S. 20th Ave., Broadview, Hi.

46 HARRIET PLACE + LYNBROOK L. I. NEW YORK 1506 SANTA FE AVE. LOS ANGELES, CALIFORNIA

OFFSET

the Laborating states

Now for the first time OFFSET GOLD IN a available that enables the offset printer to achieve practical printing results in one working.

This amazing new Rolcor Majestic OFFSET GOLD INK handles as easily as any standard litho ink, and only one time through the press gives full and complete coverage. Rolcor Majestic OFFSET GOLD INK is available in four shades of Rich Gold, Rich Pale Gold, Pale Gold and Copper Gold.

write for ink book showing full gold color range dept. ML 4

ROLL-O-GRAPHIC CORP.

133 Prince St., New York, N. Y.

other top
quality products
ROLLOR SCIENT TINTS
NON-TOXIC GREEN ETCH
(ROLLOR SCIENT TO TOXIC GREEN ETCH
(ROLLOR SCIENT TO TOXIC (ROLLOR TOXIC))

tri-mol
PLY IMPORTED
MOLUETON

Prominent Users of Strathmore Letterhead Papers: No. 127 of a Series

The SAS DC-7C Global Express, titan of the Viking Fleet which serves 77 cities in 42 countries on five continents.

SCANDINAVIAN AND



Quality gives wings to progress

Letterheads make wonderful salesmen, giving an impression of a company's character that cannot be put into words. An excellent case in point is the handsome, modern letterhead used by Scandinavian Airlines System, Inc. It says progress, it sells service, it assures quality. For, like so many of the more memorable letterheads you come across, it is printed on Strathmore...the letterhead papers that sell for prominent, progressive firms in every business. There is one that could sell for you. Why not ask your supplier to submit samples?

Scandinavian Airlines System, a unique partnership of Swedish, Danish and Norwegian interests, is the largest non-U.S. carrier operating from both coasts of the United States. SAS made aviation history when it pioneered the first new commercial world route in 1000 years, the Trans-Polar Air Path connecting California and Europe. A second route, directly over the North Pole between Europe and Japan, has just been inaugurated.

STRATHMORE LETTERHEAD PAPERS: STRATHMORE PARCHMENT, STRATHMORE SCRIPT,
THISTLEMARK BOND, ALEXANDRA BRILLIANT, BAY PATH BOND, STRATHMORE WRITING,
STRATHMORE BOND, ENVELOPES TO MATCH CONVERTED BY OLD COLONY ENVELOPE CO.
STRATHMORE THIN PAPERS: STRATHMORE PARCHMENT ONION SKIN, STRATHMORE BOND

STRATHMORE THIN PAPERS: STRATHMORE PARCHMENT ONION SKIN, STRATHMORE BOND ONION SKIN, STRATHMORE BOND AIR MAIL, STRATHMORE BOND TRANSMASTER, REPLICA

STRATHMORE

Makers of Fine Papers

STRATHMORE PAPER COMPANY, WEST SPRINGFIELD, MASSACHUSETT

Strathmore Advertisements

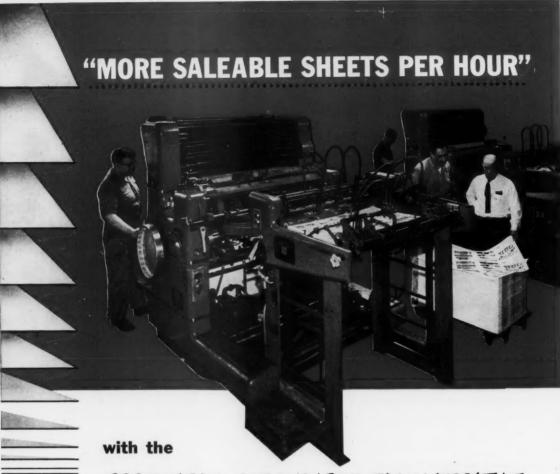
in national
magazines tell
your customers
about the
letterheads of
famous American
companies on

Strathmore
papers. This
makes it
easier for
you to sell
these papers,
which you
know will produce
quality results.

This series appears in:

TIME
NEWSWEEK
BUSINESS WEEK
PRINTERS' INK
SALES
MANAGEMENT
PURCHASING
ADVERTISING
REQUIREMENTS





PROFITABLE...DEPENDABLE...FAST...VERSATILE

MILLER E. B. CO 22"x34" OFFSET PRESS

MR. RUDOLPH PERLMUTER, president of Perlmuter Printing Company of Cleveland, Ohio, says this about Miller E.B.CO offset presses: "These presses can really take it. We have been running them 16 hours a day, seven days a week for the past six months, without any serious downtime. We get more saleable sheets per hour with our E.B.CO's than with any comparable press of other makes."

And . . . here's what Mr. Perlmuter has to say about Miller service: "On that prob-

lem we had the other day, you called your service man—who was out of town who in turn called our office long distance and straightened my man out with just a few words. I am happy with your presses and I am happy with your policy."

Thank you, Mr. Perlmuter, for those kind words. Your experience and attitude is typical of many satisfied owners of E.B.CO Offset Presses.

Write today for 20-page brochure on this profitable press!



MILLER PRINTING MACHINERY CO.

1135 Reedsdale Street, Pittsburgh 33, Pa.

MILLER PRINTING MACHINERY CO. OF CANADA LIMITED 730 Bay St., Toronto 2, Ontario

to be sure of the right ink for that job ... simply call in a GBW ink technician

Your GBW ink technician is thoroughly trained in the chemistry of "inks in use." He is schooled in the vital role inks can play in improving the quality of the printed product, and in reducing printers' costs!

His quick grasp and thorough understanding of your ink problems will assure you of trouble-free inks for each job-inks with precisely right working qualities for your shop. He has behind him GBW's 100 years of producing better inks for better impressions. He can help you.

A phone call will bring this man to your shop.

TRADITIONALLY FINE INKS FOR OVER A CENTURY . LITHO INKS LETTERPRESS INKS . METAL DECORATING INKS . DIE STAMPING INKS

Brooklyn 1, New York Chicago 7, Illinois Milwaukee 5, Wisconsin Toronto, Canada Mexico B D.F. Salt Lake City

GAETJENS, BERGER & WIRTH, INC.

New York Ink Makers Association Lithographic Technical Foundation Milwaukee Chamber of Commerce Wisconsin Ink Association ttional Association of Printing Ink Makers National Printing Ink Research Institute Chicago Printing Ink Mfrs. Association Illinois Chamber of Commerce

CAESAR-SALTZMAN CONDENSER TYPE **ENLARGER**

Here's our answer to your demands for a Caesar-Saltzman Enlarger with Condenser Light Source. We have added to the sturdy, time proven Enlarger a flexible Condenser Light Source which is the product of much research and experimentation. The Enlarger with condenser Light Source has been thoroughly tested by some of the top men in the professional field and their verdict is "everything we asked for and more."

Accessories Available:

- Three Point Glass Negative or Peg Registration System
- Lenses of Short Focal Length for Reductions
- Cones of Various Lengths for Reductions
- Variac for Control of Light and Kelvin **Output for Color Separations**
- Electronic Timer
- Special Positive Interlocking Lens and Camera Motion
- Precision Reducing Negative Holders
- Vacuum Easel and Vacuum Pump

PARTIAL LIST OF USERS

Process Litho Chicago, III.

Rochester Institute of Tech. Rochester, N. Y.

Pringle & Booth, Ltd. Toronto, Canada

C. F. Braun & Co. Aihambra, Calif.

Western Lithographing Co. St. Levis, Mo.

Krug Litho Arts Co. Kansas City, Mo.

San Francisco Police Dept. San Francisco, Calif.

Commercial Printers Columbus, Ga.

Courier Journal & Louisville Times Louisville, Ky.

Eastman-Kodak Rochester, N. Y.

Consolidated Vultee Aircraft Corp. San Diego, Calif.

Dept. of National Defense Ottawa, Canada

King Studio Chicago, 111.

Miami Herald Publishing Co. Miami, Florida

Shorecotor New York, N. Y.

Army Chemical Center Edgewood, Maryland

Write For Complete Literature

Headquarters for Professional Photographic Equipment Since 1920

SALES DISTRIBUTORS for CAESAR MANUFACTURING, INC.

480 Lexington Avenue, New York 17, N.Y.





For Superior Quality Plates With True Economy

There's a Certified Professional Platemaker in your town. You'll find, on his door, a symbol that means he is a qualified platemaker of 3M Brand Photo Offset Plates.

3M Brand Photo Offset Plates.
The call you make to him is your first move toward true economy—the result of his superior craftsmanship combined with 100% consistent 3M Brand Photo Offset Plates.
Your Certified Professional Platemaker is

Your Certified Professional Platemaker is an expert in his field. His experience can work for you to save you precious production dollars. 3M Brand Photo Offset Plates are used by

3M Brand Photo Offset Plates are used by C.P.P.'s throughout the country because these chemically treated aluminum plates positively eliminate 43 troublesome variables. The grainless surface of 3M Brand Plates assures faithful reproduction of original copy.

Phote assumed factorial reproduction original copy.

Phone . . . or stop in and see the Certified Professional Platemaker in your area. He'll show you how 3M Brand Photo Offset Plates can be a door opener to more printing sales for you.

CERTIFIED PROFESSIONAL

BRAND
LITHOGRAPHIC PLATES

PLATEMAKE

If you're in the Los Angeles area, here's a Certified Professional Platemaker you should know . . . Harry Kater, Kater Engraving Co., 331 Winston St., Los Angeles, Calif.

3M Photo Offset Plates

"3M" is a registered trademark of Minnesota Mining and Manufacturing Co., St. Paul 6, Minn. General Expert: 99 Park Avenue, New York 16, N.Y. In Canada: P.O. Box 757, London, Ontario.





SINVALCO COATING SOLUTION

#24

Cuts "Down-Time" Costs

Now, SINVALCO offers you a new deep-etch coating solution that actually means dollar savings for you. With amazing Solution #24, you can coat and store your plates for as long as 30 days in advance. It helps break plate-making bottlenecks and reduces "down-time." When you come in Monday morning, or whenever you need a plate in a hurry, you've always got a stock of coated plates on hand, ready for instant use. And you get superior performance too! Solution #24 assures outstanding results on any lithographic plates, including multi-metal—with easy development, exceptional smoothness of coating and easy stencil removal. You'll also find it perfect for step and repeat work when the first shot must match the last. If you're still using an old fashioned coating solution, you're losing money. Try SINVALCO Solution #24 today and see how much you save with "down-time" waste practically eliminated. Your nearest S&V representative will be happy to take your order!

SINVALCO

The Litho-Chemical Division of

SINCLAIR AND VALENTINE CO.





4 color offset reproduction

WARREN'S Lithographic Papers

Lusterkote • Offset Enamel • Cameo Brilliant • Overprint Label C1S

Fotolith Enamel • Silkote Offset

PAPER MERCHANTS

who sell and endorse

Warren's Standard Printing Papers

Albany, N. Y. Atlanta, Ga. Baltimore, Md. Bangor, Maine BIRMINGHAM, ALA. BOISE, IDAHO

BOSTON, MASS.

BUFFALO, N. Y. CHAMPAIGN, ILL. CHARLOTTE, N. C.

CHATTANOOGA, TENN.

CHICAGO, ILL. CINCINNATI, OHIO CLEVELAND, OHIO COLUMBUS, OHIO CONCORD, N. H. DALLAS, TEXAS DAYTON, OHIO DENVER, COLO.

DES MOINES, IOWA DETROIT, MICH. DETROIT, MICH.
EUGENE, ORE.
FORT WORTH, TEXAS
FRESNO, CAL.
GRAND RAPIDS, MICH.
GREAT FALLS, MONT.
HARRISBURG, PA.

HOUSTON, TEXAS Indianapolis, Ind. Jackson, Miss. Jacksonville, Fla. KANSAS CITY, MO.

HARTFORD, CONN.

KNOXVILLE, TENN. LANSING, MICH. LITTLE ROCK, ARK. Los Angeles, Cal. OS ANGELES, LOUISVILLE, KY. LYNCHBURG, VA. MEMPHIS, TENN. MILWAUKEE, WIS.

MINNEAPOLIS, MINN. Montgomery, Ala. Nashville, Tenn. Newark, N. J.

New Haven, Conn. NEW ORLEANS, LA

NEW YORK CITY OARLAND, CAL. OKLAHOMA CITY, OKLA. OMAHA, NEB.

PHILADELPHIA, PA.

PHOENIX, ARIZ.
PITTSBURGH, PA.
PORTLAND, MAINE
PORTLAND, ORE. PROVIDENCE, R. I.

RENO, NEV. RICHMOND, VA. ROCHESTER, N. Y. SACRAMENTO, CAL.

ST. LOUIS, Mo.

ST. PAUL. MINN. SALT LAKE CITY, UTAH SAN ANTONIO, TEXAS SALT LAKE CITY, UTA SAN ANTONIO, TEXAS SAN DIEGO, CAL. SAN FRANCISCO, CAL. SAN JOSE, CAL. SEATTLE, WASH. SHREVEPORT, LA. SPOKANE, WASH. STOCKTON, CAL. SYRACUSE, N. Y. TACOMA, WASH. TOLEDO, OHIO TROY, N. Y. TUESA, OKLA. WACO, TEXAS

WASHINGTON, D. C.

Hudson Valley Paper Company
Sloan Paper Company
The Barton, Duer & Koch Paper Co.
Brown & White Paper Company
Zellerbach Paper Company
Zellerbach Paper Company
Zellerbach Paper Company
Carter Rice Storrs & Bement Inc.
The Century Paper Co., Inc.
The Cantury Paper Co., Inc.
Solvivian-Lindenmeyr Co. Inc.
The Alling & Cory Company
Franklin-Cowan Paper Company, Inc.
Virginia Paper Company, Inc.
Southern Paper Company, Inc.
Chicago Paper Company
Chicago Paper Company
Chicago Paper Company
The Diem & Wing Paper Company
The Diem & Wing Paper Company
The Alling & Cory Company
The Alling & Cory Company
The Cincinnati Cordage & Paper Co.
C. M. Rice Paper Company
Hull Paper Company
Carpenter Paper Company
Carpenter Paper Company
Carpenter Paper Company
Zellerbach Paper Company
Zellerbach Paper Company
Zellerbach Paper Company
Zellerbach Paper Company
The Alling & Cory Company
Hull Paper Company
Comment Paper Company
Zellerbach Paper Company
Zellerbach Paper Company
The Alling & Cory Company
Virginia Paper Company
Virginia Paper Company
Virginia Paper Company
The Weissinger Paper Company
The Weissinger Paper Company
The Weissinger Paper Company
Newton Paper Company
Nackie Paper Company
Newton Paper Company
Newton Paper Company
Nackie Paper Company
Newton Paper Company
Nackie Paper Company
Nackie Paper Company
Newton Paper C

EXPORT AND FOREIGN

EXPORT AND FOREIGN

New York City (Export) National Paper & Type Co.
40 cities in Latin America and West Indies.
New York City (Export) Moller and Rothe, Inc.
20 countries in Latin America and West Indies.
New York City (Export) Muller & Phipps (Asia) Ltd.
Belgian Congo, Burma, Cylon, China, Hong Kong, Iesland,
India, Malaya, Philippine Islands, South Africa.
AUSTRALIA

R. J. Ball (IN. C.), Ltd.
HAWAHAN ISLAND

HONOIULU Paper Co., Ltd.



PHOTO BY LOUIS C. WILLIAMS

WARREN'S

Lithographic Papers

Lusterkote · Offset Enamel · Cameo Brilliant · Overprint Label C1S Fotolith Enamel · Silkote Offset

Warren's Lusterkote provides a mirror-like glossy surface that contributes brilliance to the highlights and colors in lithographic reproduction. Now available as LUSTERKOTE ENAMEL, LUSTERKOTE COVER and BRISTOL (1 Side and 2 Sides) and LUSTER CARD.

Warren's Offset Enamel is a double coated paper for the printing of pictures by offset lithography. Double coating improves printability and uniformity, resulting in a higher potential of lithographic reproduction. Offset Enamel is available in glossy finish, Saxony finish, and dull finish. Also available coated one side only.

Warren's OVERPRINT LABEL is double coated on one side and is eminently suitable for labels produced by offset lithography or by letterpress. This paper is pre-conditioned by an exclusive process.

Warren's SILKOTE OFFSET has the appearance of a wove offset but has a unique pigmented surface that gives more brilliant reproduction.

Warren's FOTOLITH ENAMEL is a machine coated two side paper for the reproduction of halftones by offset lithography.

Warren's CAMEO BRILLIANT is a dull coated offset paper with a supremely bright color for de luxe reproduction of halftones.

Write for free booklet—"How Will It Print by Offset"

S. D. WARREN COMPANY · BOSTON 1, MASS.





'How I made MAKEOVERS a thing of the past

BY A TEST IN MY OWN DARKROOM"

"I've been turning out perfect negatives since I started using Hunt Engrav-O-Graph® Developer. It was a Hunt ad that got me started. But what sold me was my own test in my own "lab"-my darkroom. Since then, here's what I've been getting with Engrav-O-Graph:

Distinct, sharply defined dots, which increase the tonal range of my negatives.

Maximum contrast development through entire tray life.

No "graying out" when dot etching is required.

Faster output and longer tray life.

"And NO MORE Makeovers!"

Don't wait another day. Make the same test yourself. Order a carton of Engrav-O-Graph on the money-back guarantee, and see what your darkroom tells you.

HERE'S THE TEST I MADE-You try it!

1. Order a carton of Engray-O-Graph on the moneyback guarantee. Make up a solution according to directions.

2. On your next camera job, shoot an extra negative for your test.

3. Cut the negative in half, notch for identifica-tion. Then run one half through your regular developer, one half through the Engrav-O-Graph Developer. Keep time and temperature the same

4. Fix and dry both test strips the same way. Then rejoin the negatives on your light table and examine the dots in identical areas. The shadow dots are harder, the highlight dots are cleaner and sharper in the Engrav-O-Graph developed portion of the negatives.

MONEY-BACK GUARANTEE

Order a carton of Hunt Engrav-O-Graph Developer from your nearest Hunt Branch. If it doesn't do all we say it does, write to the same branch for return instructions, and we will refund purchase price and shipping cost.



15

is

is

ro-

by

on-

the

as a

ves

is a

for

off-

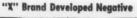
r is h a

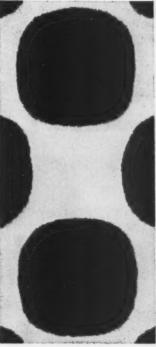
uxe

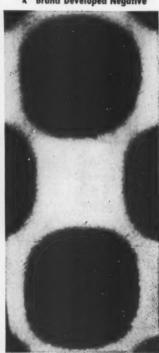


Established

Engrav-O-Graph Developed Negative







Unretouched photomicrographs (magnified 150 times) of a test film exposed through a 133 line screen of a standard gray scale. Both halves were developed for 21/4 minutes at 68°F. Note the solid, hard dots and complete absence of halation in the film developed in Engrav-O-Graph.





2 gal. sets 1 - 25 gal. set 4 - 10 gal. sets 1 - 50 gal. set

Chicago · Cleveland · Cambridge · Brooklyn · Atlanta · Dallas · Los Angeles · San Francisco

What's going on at HARRIS...



Developing new chemicals for lithography, Harris researchers use laboratory-size ion-exchange column In manufacturing litho-chemicals, Harris uses 12-foot columns to make gum arabic of extreme purity.



Changing the habits of a lifetime in many letterpress shops, the new Harris 14½ x 20½" brings profitable, high-grade lithography into the small jobpress field. Fast makeready features include quickset piling guides, convenient table-trimmings unit.





space busin Setting new records for volume paper trimming, 100" Seybold full-hydraulic spacer-trimmer is biggest cutter in the business. Here is the first one at work in one of the South's largest kraft mills.



Growing 10% a year for past six years, the use of lithography for carton printing continues to increase. This five-color, double-delivery, 52½ x 77" Harris is latest addition to all-offset pressroom of Rochester Folding Box Co., Rochester, N.Y.



HARRIS-SEYBOLD COMPANY

... for your printing profits

General Offices: 4510 East 71st Street, Cleveland 5, Ohio

HARRIS SEYBOLD

Harris Presses
Cottrell Presses
Seybold Cutters
Macey Collators
Harris Chemicals
Alum-O-Lith Plates
Special Products

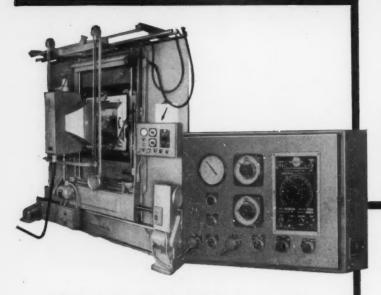


Photo-Composing Machine (Step and Repeat) - with new Automatic Sequence Control. Used by the vast majority of leading lithographers. Features: exact registration, fast and simple by automatic operation; micrometer precision to .001 for accuracy and speed; accessibilty and safety from errors.



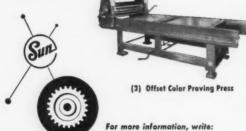
New Precision Color Camera—Rutherford cameras of this type are fully power operated and require no visual focusing. Lens board and copy board are set by micrometer dials. Other features include: structural steel base with vibrationabsorbing mounts, removable glass-covered board and 2-piece wood copy board, interchangeable lens, plus many others.



Rutherford Plate Whirler - provides uniform distribution of albumen or deep-etch coating solution. A compact gear reduction unit applies power to the plate; friction and belt drives have

When should you invest in new plate making equipment?





Rutherford Machinery Co.

Division

Sun Chemical Corporation

10th Street and 44th Avenue, Long Island City 1, N. Y. Chicago · Toronto · Montreal · San Francisco

The answer is: when you are already paying for it.

Shops that rely on obsolete equipment are already paying for new plate making equipment . . . without getting the use and advantages of new equipment. They're paying in slow production, poor results, down-time and wasted materials . . . dayafter-day losses that quickly add up to the cost of new machines.

Only a careful cost analysis can tell you whether you are losing or making money on your photocomp and camera or plate room equipment. And only complete information on the latest design and manufacturing advances can show you how efficient your operations ought to be.

DIVISIONS OF SUN CHEMICAL CORPORATION

DIVISIONS OF SUN CHEMICAL CORPORATION

HORN (paints, maintenance and construction materials, industrial coatings) •

WARWICK (textile and industrial chemicals) • WARWICK WAX (refiners of specialty waxes) • RUTHERFORD (lithographic equipment) • SUN SUPPLY (lithographic supplies) • GENERAL PRINTING INK (Sigmund Ullman • Fuchs & Lang • Eagle • American • Kelly • Chemical Color & Supply Inks) • MORRILL (news inks) •

ELECTRO-TECHNICAL PRODUCTS (coatings and plastics) • PIGMENTS DIVISION (pigments for paints, plastics, printing inks of all kinds) • OVERSEAS DIVISION (export) • A. C. HORN COMPANY, LIMITED (Canado) • GENERAL PRINTING INK CORPORATION OF CANADA, LIMITED • FUCHS & LANG de MEXICO, S. A. de C. V.

YOU ARE THE STAR IN THIS BIG NEW SHOW



To make the most of the power of print



Wherever he hangs his hat he helps

You've got a gold mine in your office when your printer walks in! Every day of his life he's been salting away helpful ideas that are yours without even asking. Just bring him into your planning early-while the job's still taking shape. He'll head off problems before they can start, make suggestions that can save you money, help you

plan ahead for faster production, put the full power of print to work for you.

We know you'll like working closely with your printer or lithographer because we've been doing it ourselves for years in bringing printers the quality papers they need to serve you bestthe most complete line in the world! The Mead Corporation, Dayton, Ohio.



Sales Offices: Mead Papers, la 118 West First Street, Daylo Ohio • New York • Chicago • Bel Philadelphia • Atlanta

heres to

Big new Mead advertising helps you get into jobs at the planning stage

A lot more eyes are going to be on you in 1957! Coming up is a big new advertising program from Mead that features the printing business—its people and its services. But the big message we're telling your customers is for them to get you into the act early! We're urging them to get you in early on every job so that you can plan ahead better to serve them better!

At left is one of a series of full-color ads that will run in Time, Fortune,

U. S. News & World Report. Below are ads for such trade magazines as Printers' Ink, Advertising Age, Advertising Requirements, Reporter of Direct Mail Advertising. All will help you and your customers by telling them to work closely with you—from the start! The Mead Corporation, Dayton 2, Ohio—producers of the world's most complete line of quality printing papers. For full information, see the Mead paper merchant nearest you.

See listings on next page.





MEAD PAPERS are available through these merchants

AKRON, OHIO Bermingham & Prosser Co. ALBANY, N. Y. W. H. Smith Paper Corporation ALBUQUERQUE, N. MEX. Dixon & Company ALLENTOWN, PA.
G. A. Rinn Paper Company ATLANTA, GA.
Dillard Paper Company AUGUSTA, GA.
Dillard Paper Company BALTIMORE, MD.
ton, Duer & Koch Paper Company
Baxter Paper Company
White-Rose Paper Company BETHLEHEM, PA. Wilcox-Walter-Furlong Paper Co. BILLINGS, MONT. Dixon & Company BOISE, IDAHO Dixon & Company BOSTON, MASS. John Carter & Co. Carter Rice Storrs & Bement, Inc. Colonial Paper Co. BRISTOL, VA.-TENN. Dillard Paper Company BROCKTON, MASS. Atwood Paper Company BUFFALO, N. Y.
Franklin-Cowan Paper Company
CHARLESTON, W. VA.
Copco Papers, Inc. CHARLOTTE, N. C. Dillard Paper Company CHATTANOOGA, TENN. Southern Paper Company CHICAGO, ILL.
Bermingham & Prosser Co.
Chicago Paper Company
La Salle Paper Co.
Messinger Paper Company
James White Paper Company CINCINNATI, OHIO Chatfield Paper Corporation Diem & Wing Paper Company CLEVELAND, OHIO Cleveland Paper Co. Union Paper & Twine COLUMBIA, S. C. Palmetto Paper Co. COLUMBUS, OHIO Central Ohio Paper Company Scioto Paper Company CONCORD, N. H. John Carter & Company DALLAS, TEXAS Clampitt Paper Company DAYTON. OHIO Hull Paper Compan DENVER, COLO.
Dixon & Company DES MOINES, IOWA Bermingham & Prosser C DETROIT, MICH. Beecher Peck & Lewis DULUTH, MINN. John Boshart Paper Co. EUGENE, ORE. Zellerbach Paper Co. FARGO. N. D. The John Leslie Paper Co. FLINT, MICH. Beecher Peck & Lewis FORT WAYNE, IND. Taylor-Martin Papers, Inc.

FORT WORTH, TEXAS
Clampitt Paper Company GRAND RAPIDS, MICH. Carpenter Paper Company
GREAT FALLS, MONT.
The John Leslie Paper Company GREENSBORO, N. C. Dillard Paper Company GREENVILLE, S. C. Dillard Paper Company HARTFORD, CONN.
Rourke-Eno Paper Company HOUSTON, TEXAS Clampitt Paper Company INDIANAPOLIS, IND. Chatfield Paper Corporation
JACKSON, MISS.
Townsend Paper Co. JACKSONVILLE, FLA.
raham-Jones Paper Company KALAMAZOO. MICH. Bermingham & Prosser Co KANSAS CITY, MO. Bermingham & Prosser Company Weber Paper Company KNOXVILLE. TENN. Dillard Paper Company LITTLE ROCK, ARK. Roach Paper Company LONG BEACH, CALIF. Zellerbach Paper Co.
LOS ANGÉLES, CALIF.
Carpenter Paper Co.
Zellerbach Paper Co. LOUISVILLE, KY Southeastern Paper C MANCHESTER, N. H. Industrial Papers, Inc. MEMPHIS, TENN. Southland Paper Co. MENASHA, WIS. Yankee Paper and Spec. Co. MIAMI, FLA. Southern Paper Co. MILWAUKEE, WIS. Wisconsin Paper & Products MINNEAPOLIS, MINN. General Paper Corporation The John Leslie Paper Compo NASHVILLE, TENN. Clements Paper Company NEWARK, N. J. Lewmar Paper Co. NEW HAVEN, CONN. Rourke-Eno Paper Company NEW ORLEANS, LA. E. C. Palmer & Co., Ltd. NEW YORK CITY NEW YORK CITY
H. P. Andrews Paper Company
Forest Paper Company, Inc.
Marquardt & Company
Miller & Wright Paper Company
Reinhold-Gould, Inc.
John F. Sarle & Company
Schlosser Paper Corporation
Willmann Paper Co. NORFOLK, VA. Old Dominion Paper Company OAKLAND, CALIF. Zellerbach Paper Co. ORLANDO, FLA. Graham-Jones Paper Company PAWTUCKET, R. I. Industrial Paper and Cordage Co PHILADELPHIA, PA.
A. Hartung & Company
Thomas W. Price Company
Raymond & McNutt Company
Wilcox-Walter-Furlong Company PHOENIX, ARIZ. Carpenter Paper Co. Zellerbach Paper Co PITTSBURGH, PA.
Central Ohio Paper Company
Chatfield & Woods Company POCATELLO, IDAHO Zellerbach Paper Co. PORTLAND, ORE Carter, Rice & Co. of Oregon Fraser Paper Co. of Oregon, Ltd. Zellerbach Paper Co. PROVIDENCE, R. I John Carter & Company Carter Rice Storrs & Bement, Inc. PUEBLO, COLO. Dixon & Co.

RALEIGH, N. C. Dillard Paper Company RICHMOND, VA.
Cauthorne Paper Company
B. W. Wilson Paper Company ROANOKE. VA. Dillard Paper Company ROCHESTER, N. Y. Fine Papers Incorporated SACRAMENTO, CALIF. Zellerbach Paper Co. ST. LOUIS, MO.
Bermingham & Prosser Company
Butler Paper Company
Tobey Fine Papers, Inc. ST. PAUL, MINN. General Paper Corporation The John Leslie Paper Co. SALT LAKE CITY, UTAH Dixon & Company SAN DIEGO, CALIF. Carpenter Paper Co. Zellerbach Paper Co. SAN FRANCISCO, CALIF. Carpenter Paper Co. Seaboard Paper Company Zellerbach Paper Co. SAN JOSE, CALIF Zellerbach Paper Co. SEATTLE, WASH. Paper Sales Corp. Zellerbach Paper Co. SHREVEPORT, LA. Western Newspaper Union SIOUX FALLS. S. D. The John Leslie Paper Co. SPOKANE, WASH. okane Paper & Station Zellerbach Paper Co. SPRINGFIELD, ILL. Capital City Paper Co., Inc. SPRINGFIELD. MASS. The Rourke-Eno Paper Co. SPRINGFIELD, MO. Springfield Paper Co. STOCKTON, CALIF. Zellerbach Paper Co. TACOMA, WASH. andard Paper Company Zellerbach Paper Co. TAMPA, FLA. Graham-Jones Paper Company TOLEDO, OHIO TULSA, OKLA. Tulsa Paper Company WASHINGTON, D. C. R. P. Andrews Paper Company Frank Parsons Paper Company WHEELING, W. VA. Olmstead Paper Co. WILKES-BARRE, PA. H. A. Whiteman & Company WILLIAMSPORT. PA.
Williamsport Paper Company
WILMINGTON, N. C.
Dillard Paper Company WORCESTER, MASS. Industrial Papers, Inc.

MEXICO

MEXICO CITY, D. F. Carpenter Paper Co. Maricopa De Mexico, S.A. MONTERREY Carpenter Paper Co.



THE MEAD CORPORATION
Sales Offices: MEAD PAPERS, INC.
118 West First Street, Dayton 2, Ohio
New York • Chicago
Boston • Philadelphia • Atlanta



Modern Art?

Dear Sir

In a recent advertisement in your magazine, it appears that you ran red on the black plate and black on the red plate. If this is an example of modern lithography it is on a par with modern art.

Clare DeDee Grand Rapids, Mich.

Thank you for classifying Modern Lithography with the great masters of modern art. Actually, you are right, we did mix up the plates in the Christmas rush. All we can say to discerning readers like you is touche. To our cash-paying advertiser, however, we had to make a more abject apology!—Editor.

Good Investment

Dear Sir:

I started my subscription to Modern Lithography with the January issue and I

am very happy to say it was an investment which will repay me a thousand fold and then some. It is obviously the best medium we have with which to stay abreast of this ever progressing field.

> Anthony Crisci South Norwalk, Conn.

Send that man a life subscription!—
Editor.

Diazo Proofs

Dear Sir:

The need for a simplified color proofing method in the graphic arts has long been felt, and to find out all that I can about the diazo-sensitized film method is my special project. I have been associated with the graphic arts for the past 16 years, and am a senior in Graphic Arts Management at the University of Houston. I hope you can help me answer all or part of the following questions:

1. What percentage of lithographic shops have platemaking facilities?

2. What percentage use a diazo-sensitive film for color proofing process and/or line negatives or positives?

3. When diazo-sensitive films are acceptable to the customers, how much money is saved over the conventional press proof method?

(Continued on Page 93)



Sell Litho

SINCE WOMEN control and spend most of the nation's money (or so it seems) it's a logical, smart move to present a woman with a booklet of simple rules to follow in keeping her financial records straight. Several months ago C. Arthur Hemminger, vice president and public relations director for First National Bank in St. Louis, conceived the idea for just such a booklet, entitled "Banking for Busy Women."

Gardner Advertising Co., St. Louis, worked with Mr. Hemminger on production of the booklet and suggested offsetting it on safety check paper. Art work was done by Gardner and the 16-page booklet was lithographed in blue ink by Century Art Press, in that city.

The initial run of 25,000 copies, distributed in bank display racks and as a give-away on TV shows, was quickly exhausted. A second printing is contemplated.

Have you had an idea for a novel use of offset, or have you played a part in selling such a job? If so, why not share your experience with other readers in this column. If response warrants, it will be a regular feature in ML. Please send a sample or photo with your letter.

NUTRAN PRODUCTS

 Retouching Dyes which lay evenly, penetrate easily into the emulsion and are fast to light.

Neutral Grey Red

and special shades which are close to silver densities, #333, #444, Neo.

- · Retouching Dye Remover.
- Staging lacquers for Liquid masking.

Overlay Lacquer Cutting Lacquer and Thinners

 Opaques, which flow well, leave thin film. Do not crack nor peel.

> Black, Red Water Soluble Alcohol Turpentine

• Electronic Control Equipment.

Densitometer
Reflection Meter Timer
Gravure Microscope
Light Integrator
Temperature Control
Sinks
Mixing Valves

 Selvyt Cloth — lint free for dry polishing of screens and lenses.

Plexiglas Trays

11 x 14, 14 x 17, 16 x 20, 20 x 24, 20 x 30, 22 x 28, 30 x 40, 36 x 52

Request Technical Data

HENRY P. KORN

5 BEEKMAN STREET NEW YORK 38, N. Y. REctor 2-5808



. . . OUT OF

SMALL PRESS COMPETITION

INTO THE

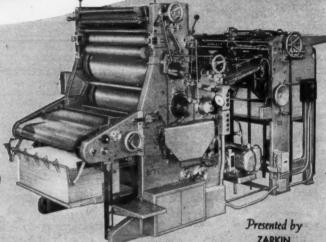
BIG PRESS CLACC

WITH THE

ROYAL ZENITH

Offset Pres

(Sheet size 23" x 30")



ZARKIN CHINE CO. INC.

How many jobs do you turn down for want of a larger press? Let the 23" x 30" sheet size of the ROYAL ZENITH 29 Offset Press lift you right out of the highly competitive smaller press class with BIG PRESS PROFITS!

This is the press that has everything:

- Surprisingly low initial cost
- Precision register
- Minimum makeready and lightning fast getaway!
- Sturdy "Rock of Gibraltar" construction
- Top quality work
- Speed up to 40,000 impressions per shift
- Simple, economical operation
- TREMENDOUS PROFIT POTENTIAL!

Scores of installations all over the U.S.—hundreds throughout the world—attest to the Royal Zenith's popularity. Why not get all the facts on this big money-maker



mechanics for service on parts and maintenance are on call anywhere in the U.S. 24 hours for your shop?

For full details and name of distributor in your area—call, write or wire Dept. M.

enith orporation oyal

WORLD'S FINEST LITHOGRAPHIC PRESSES AStoria 4-0808

34-20 ELEVENTH STREET LONG ISLAND CITY 6, N. Y.

EDITORIALS

Paul Heideke Retires

FTER virtually a lifetime of experience in the lithographic industry, Paul A. Heideke has sold his interest in the Washington Planograph Co., Inc. to a group operating both lithograph and letter

press plants. Officers are John W. Kluge, president; Mark Evans, treasurer and general manager and Ira Kaplan, executive vice president. Paul served as a director and on numerous committees of both the Graphic Arts Association of



Washington, D. C. and the Washington Litho Club for many years. He takes particular pride in the fact that he helped found, with 23 charter members, the National Association of Photo-Lithographers in 1933. It has since increased its membership to more than 1,000. He was the second president of the NAPL, serving for the four year period 1935-1939. He was accorded recognition for his long service with the organization in an engrossed resolution presented to him in 1939.

When interviewed as to his future plans, Paul stated that he hoped he could spend his future serving where his long experience in the lithographic industry might be used to advantage.

We are sure the entire litho industry joins ML in wishing Paul well as he starts his semi-retirement. (Paul was honored March 26 by the Washington Litho Club. See page 100.)

Figures on Printing Safety

ATIONAL Safety Council officials have questioned the report on printing plant accidents (October, 1956 ML) which interpreted the Council's own figures as indicating that the situation in printing safety is getting worse. In 1953, ML reported, printing and publishing ranked 14th among 40 industries as to frequency of accidents. It dropped to 16th place in 1954 and slipped further to 18th place in 1955. In severity rating the ranking for the same years was 12th, 2nd and 6th.

This, says the Council's printing and publishing section News Letter, for January, "gives the impression that the accident picture is getting gloomier with the end of each year." This ranking, the News Letter explains, gives only the printing industry's position relative to the others. Actually, says the Council organ, "the frequency rate has remained fairly steady for the last three years, while the severity rate has shown a marked improvement." Explaining further, the News Letter says "The improvement in our severity rate does not mean much . . . It's the frequency rate that's important, Ours has been just about the same for three years. We're not gaining-just holding our own."

We agree that those frequency figures—6.54 for 1953; 6.68 for 1954 and 6.38 for 1955-do clearly indicate that "We're not gaining-just holding our own." But may we add that the Council's frequency rates were based on reports from 39 "units" in 1953 and from 49 units in 1954 and 1955. To us that seems a rather small sampling from the 45,-000 firms comprising the printing industry.

Reports by the federal Bureau of Labor statistics strengthen the generally recognized fact that the Council's figures do not adequately present the printing industry's true accident picture.

The Bureau's latest available report covering 1954, is based on reports from 3,361 printing firms. Their frequency rate works out to 9.3. Contrasting that with the Council's frequency rate of 6.8, based on 49 reports that year, it would seem that much remains to be done before any exact picture can be (Continued on Page 98)

In his first two articles in this three-part series (ML, February, page 30, March, page 34) author Poharnok outlined the background and reasons behind the popularity of masking and presented a guide for the masking process. In this concluding article Mr. Poharnok, who is a color analyst and dot-etcher for Lord Baltimore Press, Baltimore, presents what he considers to be the true basis for masking. He is writing this series to refute what he considers to be a widespread notion that masking eliminates handwork. "Masking is efficient as a means of correction but it is not a cure-all", he believes. Mr. Poharnok's provocative opinions are, of course, his own. Comments of other readers are invited.

Let's Face It:

PART III

The True Basis for Masking

By Zoltan I. Poharnok

Color Analyst, Lord Baltimore Press

SINCE the final color harmony of the reproduction depends to a large extent on how a selected set of inks appears when broken down to halftone values, it is of the utmost significance to ascertain that ink colors, their power, chromatic purity and tonal value be compatible. What this means is that we must use inks that, when used as a set of the three primaries (and a black), must be of the same nature in all respects. A weak yellow with a strong red, a medium strength blue and a jet-black do not constitute a compatible set.

How can we select a properly balanced set? By densitometric analysis through the standard complementary filters. In a number of good litho houses, inks are being checked somewhat in this manner but not "all the way."

Take Four Filter-Readings

What I suggest is to take filter-readings not only through the complementary filter of the base color but through all four filters (blue, green, red, and yellow). Only in this manner can we have complete information about all features of any ink. The readings should be made from process solids, printed on the stock we intend to use for the job at hand. A good standard, medium strength set of inks will have a series of filter-data as follows:

Yellow: -Y/.80; -R/ .10, -BL/0.0, Bk/.04 Red: -Y/.50, -R/1.10, -BL/0.0, Bk/.33 Blue: -Y/.12, -R/ .25, -BL/ .85, Bk/.60

BLACK: -Y/.80, -R/1.0, -BL/1.0, Bk/.95 These are close approximates and generally valid for a good average set. When reading the 50 percent tint (printed) of same inks we will find that the base-color itself (underscored) usually is less than half the solid value, while some of the secondaries go drastically up or down. In other words, the relationship between secondaries and base-colors definitely is *not* a constant. It changes with almost every step as the solid is broken down to lighter and lighter halftone values.

Checking the Solids

And that is not all. Checking the printed blends (surprinted) in solids, we find that, at 50 percent the sumtotal of the individual figures of each color is seldom, if ever, the equal of the quantities we have from the blend under same filters, on same stock, from the same inks.

A blend of solids is never the same, under any filter, as the sum-total of the individual solids under same filter.

These are unquestionable facts, as anyone can find out for himself. When the inks are incompatible, (light and weak with strong and dark) the comparative readings reveal a nightmare of distortions. The tone-value level of all reds and blues undergoes a most drastic change. A red which represents a tone-level (what Munsell calls a "value") of 45 percent relative to chroma saturation (1.10 in the preceding list) may become 55 percent in the half-tint (50 percent) and a blue of .85 when solid with a tone value of 40 percent is likely to show 55 or 60 percent at the half-tint. These changes are of tremendous significance to the color-corrector. Ignorance of them imposes very heavy penalties in production costs.

Detailed information about inks is a must indeed and

this knowledge helps us in the preliminary evaluation of the original copy of which we also ought to take filter readings.

Key-points should be selected for such analysis and the readings recorded. Reflectance readings through the same filters we used for ink-analysis, are valuable in preparing the job. With only very few exceptions, any selected detail of any copy appears to be a blend because we will have some degree of at least two colors, and in the great majority of cases, four. That should not surprise us because we can determine three things from any ink, too. This shows that in our work we never come across truly pure colors at all. The interference of the secondaries with the base-color is a phenomenon we must learn to understand and utilize.

Once we have the two ends analyzed and recorded, we can start to convert copy values into ink values and thus establish the halftone (dot) percentages we have to create in the positives in order to match original copy in true reproduction. That conversion is, I admit, not as simple as it would make us believe, but it can be solved. (This writer worked it out in a series of simple equations, now under test, with most promising results.)

The standard color systems, (Ostwald, Munsell and others) do not seem to be practicable because of the extremely intricate calculations they necessitate, also, because those formulas treat the black as an achromatic element. (The same trouble prevails in the scanner-equations.)

Once a workable method has been found, we know to a degree of astonishing accuracy what we want in the positives and, consequently, what we need in the negatives. On the basis of such information we can plot the density maxima, range and contrast factor of the masks we need and also the exposure-times for the screen positives. Using this system I found that, apart from duly planned highlight masks, I very seldom have to prepare color-corrective masks and then, no standard percentage ratios can be relied upon.

The separation-negatives can be made to come very

close to our needs and the usual discrepancies found at the low end (shadows) can be corrected by hand in a matter of minutes. That done, aperture and exposure-time for the screen positives can be intelligently established and a job of top quality in color fidelity all through takes less time and effort than the making of a set of corrective masks alone.

Positive Values Vs. Density

In any plant, the cameraman can easily accumulate a sufficient volume of data to establish the average screenvalues he can normally expect from any given degree of density. With such a list in his hands he can easily find out what D-range and local D-levels he will need to match—or come close to—copy values and thus eliminate wild guessing. Also, he will see at once where any separation negative would yield more or less color than necessary. Knowing these things, he will be able to decide what kind and degree of corrections are to be done. And to get such information we don't need to perform many intricate calculations or spend much time.

More Thinking and Less Doing

To sum up the issue I would like to suggest that we do a little more thinking instead of getting caught in the wheels of a routine just because everybody else is eager to get on the band wagon.

As we all know from long experience, color work can never become a standardized, mechanized, automatic operation that needs no mental effort. As in any other industry, mechanization (or call it automation if you will) has its price. In our field the price is compromise on quality—on color-quality.

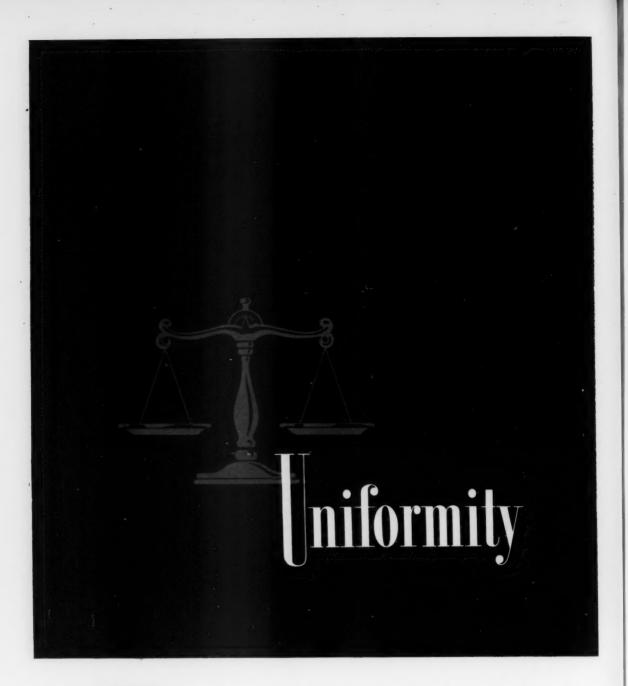
We just can not afford to pay that price because ours is a highly competitive field and lower price, though attractive to all buyers, is not the key to success. The key is quality. Those who can produce better, higher quality at a lower price, will be the winners.

Automatic applications of masking won't necessarily help us to victory.★



Z. I. Poharnok

ZOLTAN 1. POHARNOK, whose experience in the graphic arts stretches into three continents, across 28 years, was born in Hungary in 1905. He studied at the Royal Institute of Fine Arts, Budapest, and the Hammersmith School of Graphic Arts, London. After serving with European firms, he came to the U.S. in 1946. For the past few years he has been a dot-etcher and color analyst at Lord Baltimore Press, Inc., Baltimore. He worked out a method of color separation by hand (the Parton Process) and he is interested in the psychology of color applications.





WILLIAM C. HERRICK INK CO.

Incorporated

EAST RUTHERFORD, N. J.

QUALITY INKS FOR PRINTERS, LITHOGRAPHERS AND NEWSPAPERS

LNA Convention Section

Guest Editorial:



Lithography:

A

Constant

Challenge

By Carl N. Reed

President, Lithographers National Association

TO ME, one of the most fascinating features of our lithographic industry is the constant challenge it presents to our ingenuity, imagination and initiative. In a business world today which is epitomized by bigness, lithographers have been able to advance in size and growth and still maintain the integrity of individualism.

All of this has been accomplished by an enlightened management maintaining a position which has enabled the lithographic industry to adapt itself to the changing needs and diversifications of all businesses which the industry serves. While much has been done in the past a great deal more remains to be done in the future.

Progressive management must be constantly on the alert to find new methods and new techniques. Our record as an industry indicates that we have been successful to some considerable measure. Some 30 years ago, forward looking members of LNA spearheaded the Lithographic Technical Foundation. Our industry has whole-heartedly supported this unique research foundation and the results of the Foundation's services to the industry are incalculable. This year LNA is sponsoring its 7th Annual Awards Competition and Traveling Exhibit - a continuing activity which has exerted a tremendous force in widening the market for lithography. The enthusiasm of not only the industry but our customers and clients is clearly indicated by an increase in entries in this year's competition over last year's competition of approximately 25 percent. It is said that imitation is the greatest proof of success. If this be true, then the recent moves in the other areas of the graphic arts to establish similar activities can only be taken as an indication that we are proceeding on a correct basis.

Indeed, the recent survey of the graphic arts by the Bureau of Census, U. S. Department of Commerce, further substantiates this position. During the seven-year period from 1947 through 1954, the lithographic industry increased its annual sales volume by some 106 percent, while during this same period commercial printing increased its annual sales by only 46 percent.

The record is good, but we can not afford to rest on our laurels

Again I stress that this challenge can only be met by a progressive management. And such a management must give equal consideration to all the various facets of our industry. To mention a few of the more important areas: control of costs; a sound and profitable sales policy; a realistic purchasing program; development of realistic labor management relations; and proper consideration of financial policies with a long range point of view. On reflection these items are all among the many services offered by LNA to its membership. Since most of our industry is comprised of small businesses, it is necessary that we make use of the services available to us through our trade association.*



Louis A. Squiteri



William M. Horne Jr.



Carl N. Reed



John F. Perrin Christopher W. Hoey

L.N.A.

Returns to Popular Greenbrier For 52nd Convention April 1-3

PANEL discussions on labor and taxes — two perennial problems of management - are on the program for the 52nd annual convention of Lithographers National Association April 1-3 at the Greenbrier Hotel. Two consultants will discuss tax problems for the closely-held corporation, and three attorneys will handle the panel on labor-management relations.

Complete program for the convention at the White Sulphur Springs, W. Va., resort is on the opposite page. The many attractions of the famous resort are expected to draw a bigger than usual attendance. Also on the program are product group meetings covering bank stationery, platemaking, posters, greeting cards, labels and book manufacturing. A full social program also is on the schedule, along with exhibition of the LNA competition winners.*

Theophil C. Kammholz

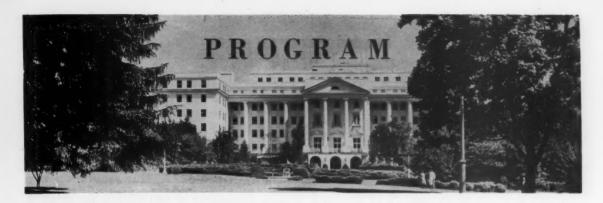


Joseph F. Finnegan





52



Monday, April 1

MORNING:

Address of Welcome

Carl N. Reed, LNA President

"Lithographic Profits-1956"

W. Floyd Maxwell, LNA Executive Director

"LNA's Role in the Growth of Lithography"

John M. Wolff, LNA Vice President

AFTERNOON:

Section and Product Group Meetings

Bank Stationers' Section

Clark R. Gregory, Jr., Vice Chairman (A follow-up meeting of this Section will also be held Thursday morning, April 4, after the close of the Convention.)

Greeting Cards

Richard N. Kauffman, Chairman

Posters

Andrew Donaldson, Jr. Chairman

Ladies' Golf Tournament

Tuesday, April 2

MORNING:

"LTF Progress Report"

John F. Perrin, Pres. Lithographic Technical Foundation

Report of Nominating Committee

Ralph J. Wrenn, Chairman

"Industrial Relations Review-1957"

Quentin O. Young, LNA Director of Industrial Relations

"Improving Our Collective Bargaining"-

"Legal Aspects of Litho Contracts"

Theophil C. Kammholz Vedder, Price, Kaufman & Kammholz

Chicago

"Multi-Employer Bargaining"

Christopher W. Hoey, Partner Davis, Hardy & Schenck

New York

"Collective Bargaining from the Mediator's Viewpoint"

Joseph F. Finnegan, Director

Federal Mediation & Conciliation Service Washington, D. C.

This session will be concluded with a question and answer period for which full time will be allowed.

AFTERNOON:

No Sessions. Open for recreation.

Men's Golf Tournament

Gerald W. Matheson, Chairman-LNA Golf Committee

Ladies' Card Party

Mrs. Carl N. Reed, Chairman Ladies' Entertainment Committee

Wednesday, April 3

MORNING:

Election of Directors

"Changing Times-Changing Ownership and Resulting

Tax Problems for Closely Held Corporations."

Archibald A. Paterson

Steinberg & Patterson

New York

William M. Horne, Jr., Partner

Warner, Stackpole, Stetson & Bradlee

Boston

Discussion will include evaluation of stock in closely held corporations; shifting control of closely held corporations and management incentives; estate problems re stock redemption and raising of tax monies on death of principal stockholder; profit sharing and pension plans.

"Lithography's Real Potential"

Louis A. Squitieri, Division Purchasing Agent, U. S. Rubber Co., New York

AFTERNOON:

Section and Product Group Meetings

Litho Platemakers

Dante V. Mazzocco, Chairman

Labels

Ralph J. Wrenn, Chairman

Books

William H. Bulkeley, Chairman

EVENING:

Annual Banquet-Entertainment



Electrical Installations
Motor Maintenance
Moving of Plants

DAY AND NIGHT SERVICE

Rewinding and Repairs
Engineering Service
Air Conditioning

KRUG ELECTRIC CO., INC.

351 W. 52nd ST., NEW YORK 19

Established 1919

COlumbus 5-2815

OFFSET ENGRAVINGS AND PRESS PLATES FOR LITHOGRAPHERS

If it's quality and service you desire call WOrth 4-6271. Our reputation is your guarantee of top quality for color, black and white negatives, positives, and press plates.



DANIEL MURPHY & CO., Inc.

480 CANAL ST., NEW YORK 13, N.Y.

WOrth 4-6271-2-3

QUALITY PAPERS

for Lithography

carried in stock for your immediate needs

Paper Merchants

CROSS SICLARE & SONS, INC.

established 1912

Exclusive N. Y. C. Distributors for Newton Falls Paper Mill

AL 4-9760-1-2-3

207-213 Thompson St.

New York 12, N. Y.



Quality, Quantity Up in 7th Competition

ONE hundred and ten litho shops in the United States and Canada figured in the production of 270 winning pieces signalled out for national recognition in the 7th Lithographic Awards Competition and Exhibit, sponsored by the Lithographers National Association.

The plants winning pieces were chosen from a record number of entries produced in 1956, according to Edward J. Chalifoux, president of Photopress, Inc., Chicago, and chairman of the LNA promotion committee, which is in charge of the annual promotion. A total of 2,496 entries in 45 categories of lithographic material were submitted.

Mr. Chalifoux paid tribute to "the hundreds of individuals and firms responsible for the design, creation and production" of the winners "whose originality and high standard of quality showed a versatility and practicality that has become a hallmark of lithographic production in recent years."

All of the winners, selected by a panel of judges in the art, advertising and production fields, will receive certificates this month. The winning pieces, which received awards of equal merit in their respective classifications, were judged on the basis of excellence of lithography, originality and freshness of art and design and the effectiveness of their functional value.

Fifty-five exhibit panels, point-ofpurchase displays and posters, representing all of the 270 winning specimens, will be shown at the LNA convention April 1 to 3. They will also be exhibited April 30-May 3 at the Madison Hotel in New York and May 14-17 at the St. Clair Hotel in Chicago.

During the coming year, thousands

of persons in the graphic arts and advertising fields will have an opportunity to see the awards exhibit as it tours the principal cities, in the U.S., according to LNA. Locally-sponsored exhibitions can be arranged through LNA's western manager Gordon C. Hall, LNA, 127 N. Dearborn St., Chicago, who is in charge of making arrangements for its itinerary.

Thirty-five thousand copies of the 80-page awards catalog will be distrated in the catalog, which is also distributed at local showings, Herbert W. Moise, LNA promotion director tributed to a special mailing list of national advertisers, advertising agencies and lithographers this month. All the winning specimens are illustated.

Following is a complete list of lithographers who produced the award winners. Numbers on photos correspond to number in listing.*



DIRECT MAIL ADVERTISING AND SALES SERVICE LITERATURE

Folders and Broadsides

1. Parish Press, Inc., New York; 2. Mercury Lithographing Co., Miami; 3. The Nielsen Lithographing Co., Cincinnati; 4. Koltun Bros., Los Angeles; 5. Herbert Hertz Co., Inc., Los Angeles; 6. Hill-side Press, Los Angeles.

Booklets and Pamphlets

7. Parish Press, Inc., New York; 8. D. F. Keller Co., Chicago; 9. Brett Lithographing Co., Long Island City, N. Y. 10. Frye & Smith, Ltd., San Diego; 11. Inland Lithograph Co., Chicago; 12. Photopress, Inc., Broadview.

Catalogs

13. The Regensteiner Corp., Chicago; 14. National Lithograph Co., Detroit; 15. The Nielsen Lithographing Co., Cincinnati; 16. The Calvert Lithographing Co., Detroit; 17. W. A. Krueger Co., Milwaukee; 18. Western Lithograph Co., Los Angeles.

Covers, Inserts and Signatures

19. The E. F. Schmidt Co., Milwaukee; 20. The Nielsen Lithographing Co., Cincinnati; 21. The Huron Press, Inc., Chicago; 22. National Advertising Mfg. Co., Philadelphia; 23. Silverlake Lithographers, Inc., Los Angeles; 24. Mercury Lithographing Co., Miami.

Lithographers' Own Promotion

25. R. R. Donnelley & Sons Co., Chicago; 26. Brett Lithographing Co., Long Island City, N. Y.; 27. W. A. Krueger Co., Milwaukee; 28. Herbick & Held Printing Co., Pittsburgh; 29. McCormick-Armstrong Co., Inc., Wichita; 30. The Veritone Co., Chicago.

Material in One or Two Colors

31. Frye & Smith, Ltd., San Diego; 32. Higgins-McArthur Co., Atlanta; 33. Chas. R. Wood Associates, San Francisco; 34. Ace Offset Printing Co., Inc., Los Angeles; 35. United Offset, New York; 36. Photopress, Inc., Broadview, Ill.

Miscellaneous - Envelope Inserts, etc.

37. Crafton Graphic Co., Inc., New York; 38. Koltun Bros., Los Angeles; 39. Western Lithograph Co., Wichita; 40. Parish Press, Inc., New York; 41. Magill-Weinsheimer Co., Lincolnwood, Chicago; 42. The E. F. Schmidt Co., Milwaukee.

BUSINESS REPORTS Annual Reports

43. Ronalds Federated Ltd., Montreal; 44. The E. F. Schmidt Co., Milwaukee; 45. Western Lithograph Co., Los Angeles; 46. H. S. Crocker Co., Inc., San Bruno, Calif.; 47. Koltun Bros., Los Angeles; 48. The Crane-Howard Lithograph Co., Cleveland.

Quarterly and Other Reports

49. Western Printing & Litho. Co., Poughkeepsie, N. Y.; 50. Parker Enterprises, Inc., Los Angeles; 51. Shelby Lithograph Co., Detroit; 52. Wm. S. Henson, Inc., Dallas; 53. Hillside Press, Los Angeles; 54. Williams & Heintz Lithograph Corp., Washington, D. C.

POINT-OF-PURCHASE MATERIAL

Window Displays, Flat-Plane

55. Niagara Lithograph Co., New York; 56. Einson-Freeman Co., Inc., Long Island City, N. Y.; 57. Einson-Freeman Co., Inc., Long Island City, N. Y.; 58. Smith-Hart Printing Corp., Rochester; 59. Einson-Freeman Co., Inc., Long Island City, N. Y.; 60. Forbes Lithograph Mfg. Co., Boston.

Window Displays, Multi-Plane

61. McCandlish Litho. Corp., Philadelphia; 62. Lane Display Corp., New York; 63. Allen Lithography, Chicago; 64. Kindred, MacLean & Co., Long Island City, N. Y.; 65. Consolidated Lithographing Corp., Carle Place, L. I., N. Y.; 66. Niagara Lithograph Co., Buffalo.

Light or Motion Displays

67. Sweeney Lithograph Co., Inc., Belleville, N. J.; 68. Einson-Freeman Co., Inc., Long Island City, N. Y.; 69. Inland Lithograph Co., Chicago; 70. Magill-Weinsheimer Co., Lincolnwood, Chicago; 71. Inland Lithograph Co., Chicago; 72. Schmidt Lithograph Co., San Francisco.

Counter Merchandisers and Displays

73. Brett Lithographing Co., Long Island City, N. Y.; 74. The U. S. Printing & Lithograph Co., Erie, Pa.; 75. Smith-Hart Printing Corp., Rochester; 76. The U. S. Printing & Lithograph Co., Erie, Pa.; 77. Magill-Weinsheimer Co., Lincolnwood, Chicago; 78. Carter & Galantin of Illinois, Chicago.

Floor Merchandisers and Displays

79. Forbes Lithograph Mfg. Co., Boston; 80. The Inland Lithograph Co., Chicago; 81. Snyder & Black, New York; 82. Strobridge Lithographing Co., Cincinnati; 83. Merrick Lithograph Co., Cleveland; 84. Fetter Printing Co., Louisville.

Combination Displays

85. Einson-Freeman Co., Inc., Long Island City, N. Y.; 86. Einson-Freeman Co., Inc., Long Island City, N. Y.; 87. Graphic Arts, Detroit; 88. Snyder & Black, New York; 89. Consolidated Lithographing Corp., Carle Place, L. I., N. Y.; 90. Ketterlinus Litho. Mig. Co., Primos. Pa.

Miscellaneous (shelf talkers, window strips, price cards, banners, etc.)

91. Einson-Freeman Co., Inc., Long Island City, N. Y.; 92. Harrison & Smith Co., Minneapolis; 93. Merchants Publishing Co., Kalamazoo, Mich.; 94. A. Carlisle & Co., San Francisco; 95. The U. S. Printing & Lithographing Co., Erie, Pa.; 96. Einson-Freeman Co., Inc., Long Island City, N. Y.

POSTERS

24-Sheet Posters

97. Western Printing & Lithographing Co., St. Louis; 98. The U. S. Printing & Lithograph Co., Erie, Pa.; 99. Gugler Lithographic Co., Milwaukee; 100. The U. S. Printing & Litho. Co., Erie, Pa.; 101. Gugler Lithographic Co., Milwaukee; 102. Western Printing & Lithographing Co., St. Louis.

One, 2, 3-sheet, Truck, Wall, Window, etc. Posters & Wall Charts 103. Western Printing & Lithographing Co., St. Louis; 104. Strobridge Lithographing Co., Cincinnati; 105. The U. S. Printing & Lithograph Co., Erie, Pa.; 106. Bradford-Robinson Printing Co., Denver; 107. R. M. Rigby Printing Co., Kansas City, Mo.; 108. The U. S. Printing & Lithograph Co., Erie, Pa.

DISPLAY CARDS

Car Cards, Bus, End Cards (on board or mounted)
109. Strobridge Lithographing Co., Cincinnati; 110. Continental
Lithograph Corp., Cleveland; 111. The U. S. Printing & Lithograph
Co., Erie, Pa.; 112. Eastern Colortype Corp., New York; 113. The
U. S. Printing & Lithograph Co., N. Y. C.; 114. Western Printing
& Lithographing Co., St. Louis.

PACKAGING MATERIALS

Labels

115. Diamond Printing Co., Wilmington; 116. The U. S. Printing & Lithograph Co., St. Charles, Ill.; 117. H. S. Crocker Co., Inc., San Bruno, Calif.; 118. Western Lithograph Co., Los Angeles; 119. Honolulu Lithograph Co., Ltd., Honolulu; 120. Stecher-Traung Lithograph Corp., Rochester.

Wrappers

121. Kaumagraph Company, Wilmington; 122. H. S. Crocker Co., Inc., San Bruno, Calif.; 123. Consolidated Lithographing Corp., Carle Place, N. Y.; 124. R. R. Heywood Co., Inc., New York; 125. Rossotti Lithograph Corp., North Bergen, N. J.; 126. Philipp Lithographing Co., Milwaukee.

Cartons

127. Western Lithograph Co., Los Angeles; 128. The Lord Baltimore Press, New York; 129. Lawson Litho. & Folding Box Co., Montreal; 130. Milprint, Inc., Milwaukee; 131. The U. S. Printing & Lithograph Co., Cincinnati; 132. The U. S. Printing & Lithograph Co., N. Y. C.
Miscellaneous-Packaging Inserts, All-over Papers, Tags, Seals, etc.



MODERN LITHOGRAPHY, April, 1957

133. Standard Lithograph Co., Los Angeles; 134. Photopress, Inc., Broadview, Ill.; 135. H. S. Crocker Co., Inc., San Bruno, Calif.; 136. The Baughman Co., Richmond; 137. W. S. Konecky Associates, New York; 138. Photopress, Inc., Broadview, Ill.

BANK AND COMMERCIAL STATIONERY Business Stationery – Letterheads, Envelopes and Matched Stationery

139. Ace Offset Printing Co., Inc., Los Angeles; 140. Delzer-Marlowe Co., Waukesha, Wisc.; 141. Loose Leaf Press, Milwaukee; 142. Silverlake Lithographers, Inc., Los Angeles; 143. Frye & Smith, Ltd., San Diego; 144. Weber Lithographing Co., Chicago.

Miscellaneous — Commercial Checks, Bank Checks and Drafts, Ruled Forms, Certificates, Blotters, Etc.

145. Wetzel Brothers, Milwaukee; 146. Brett Lithographing Co., Long Island City, N. Y.; 147. A. Carlisle & Co., San Francisco; 148. Stafford-Lowdon Co., Fort Worth; 149. Jeffries Banknote Co., Los Angeles; 150. Wheelwright Lithographing Co., Salt Lake.

BOOKS AND BOOK JACKETS

Juvenile - Picture

151. Affiliated Lithographers, New York; 152. Connecticut Printers, Inc., Hartford; 153. Western Printing & Lithographing Co., Poughkeepsie, N. Y.; 154. Western Printing & Lithographing Co., Poughkeepsie, N. Y.; 155, The Regensteiner Corp., Chicago; 156. Weber Lithographing Co., Chicago.

Juvenile Text

157. Western Printing & Litho. Co., St. Louis; 158. W. S. Konecky Associates, New York; 159. Meriden Gravure Company, Meriden, Conn.; 160. Western Printing & Litho. Co., Poughkeepsie, N. Y.; 161. W. S. Konecky Associates, New York; 162. Consolidated Lithographing Corp., Carle Place, L. I., N. Y.

Trade, Text, Other Books

163. Kipe Offset Process Co., Inc., New York; 164. D. F. Keller Co., Chicago; 165. W. S. Konecky Associates, New York; 166. W. S. Konecky Associates, New York; 167. Kipe Offset Process Co., Inc., New York; 168. Consolidated Lithographing Corp., Carle Place, N. Y.

Book Jackets

169. Herst Litho Co., Inc., New York; 170. Stecher-Traung Lithograph Corp., Rochester; 171. Parker & Son, Inc., Los Angeles; 172. Keniltone Press, New York; 173. Reehl Litho, New York; 174. W. S. Konecky Associates, New York.

School Yearbooks

175. Wheelwright Lithographing Co., Salt Lake City; 176. Newsfoto Publishing Co., San Angelo, Texas; 177. New City Printing Co., Union City, N. J.; 178. La Salle Lithograph Corp., New York; 179. Taylor Publishing Co., Dallas; 180. New City Printing Co., Union City, N. Y.

MAGAZINES AND HOUSE ORGANS

Complete Publications

181. R. R. Donnelley & Sons Co., Chicago; 182. Runkle-Thompson-Kovats, The Veritone Co., Magill-Weinsheimer, Chicago; Photopress, Inc., Broadview, Ill.; 183. Crafton Graphic Co., Inc., New York; 184. Runkle-Thompson-Kovats, Chicago; 185. Wm. G. Johnston Co., Pittsburgh; 186. Runkle-Thompson-Kovats, Chicago.

Covers Only

187. Herst Litho Co., Inc., New York; 188. Gibson & Perin, Cincinnati; 189. Alumni Offset, Inc., New York; 190. Rockwood Press, Cincinnati; 191. Capricorn Lithograph Co., New York; 192. Niagara Lithograph Co., Buffalo.

Signatures and Inserts

193. Ketterlinus Litho Míg. Co., Primos, Pa.; 194. The Regensteiner Corp., Chicago; 195. Cincinnati Lithographing Co., Inc., Cincinnati; 196. Wheelwright Lithographing Co., Salt Lake City; 197. The Regensteiner Corp., Chicago; 198. The Regensteiner Corp., Chicago.

MAPS Road Maps

199. Western Printing & Lithographing Co., Poughkeepsie, N. Y.; 200. Western Printing & Lithographing Co., Poughkeepsie, N. Y.; 201. The Nielsen Lithographing Co., Cincinnati; 202. Haynes Lithograph Co., Rockville, Md.; 203. The Steck Company, Austin; 204. Harrison & Smith Co., Minneapolis.

Other Maps

205. Krug Litho Art Company, N. Kansas City, Mo.; 206. Ketterlinus Litho. Mfg. Co., Primrose, Pa.; 207. Fort Dearborn Litho Co., Niles, Ill.; 208. Inland Lithograph Co., Chicago; 209. Ketterlinus Lithographic Mfg. Co., Primos, Pa.; 210. Western Printing & Lithographing Co., St. Louis.

MENUS, PROGRAMS AND ANNOUNCEMENTS

211. Mercury Lithographing Co., Miami; 212. Young & Klein, Inc., Cincinnati; 213. Litho Arts, Miami; 214. National Lithographers Co., Miami; 215. Hillside Press, Los Angeles; 216. American Lithographi Co., Atlanta.

CARDS

Greeting Cards - Published (stock)

217. Panda Prints, Inc., Bronx, N. Y.; 218. Panda Prints, Inc., Bronx, N. Y.; 219. Fort Dearborn Lithograph Co., Niles, Ill.; 220. Biltmore Press, Los Angeles; 221. The Regensteiner Corp., Chicago; 222. Central Lithograph Co., Cleveland.

Greeting Cards - Private

223. American Lithograph Co., Atlanta; 224. Western Lithograph Co., Wichita, Kansas; 225. Brett Lithographing Co., Long Island City, N. Y.; 226. Allen Lithography, Chicago; 227. Western Printing & Litho. Co., Racine, Wisc.; 228. Jeffries Banknote Co., Los Angeles.

Pictorial Postcards

229. H. S. Crocker Co., Inc., San Bruno, Cal.; 230. Colourpicture Publishers, Inc., Boston.; 231. R. M. Rigby Printing Co., Kansas City, Mo.; 232. H. S. Crocker Co., Inc., San Bruno, Cal.; 233. H. S. Crocker Co., Inc., San Bruno, Cal.; 234. Litho Press, Inc, Indianapolis.

CALENDARS

Stock Calendars

235. U. O. Colson Co., Paris, Ill.; 236. H. S. Crocker Co., Inc., San Bruno, Cal.; 237. U. O. Colson Co., Paris, Ill.; 238. U. O. Colson Co., Paris, Ill.; 239. Harrison & Smith Co., Minneapolis; 240. Joseph Hoover & Sons Co., Philadelphia.

Custom-Built Calendars

241. H. S. Crocker Co., Inc., San Bruno, Cal.; 242. U. O. Colson Co., Paris, Ill.; 243. Ketterlinus Litho Mjg. Co., Primos, Pa.; 244. R. M. Rigby Printing Co., Kansas City, Mo.; 245. The E. F. Schmidt Co., Milwaukee; 246. Stecher-Traung Lithograph Corp., Rochester.

ART PRINTS

247. Western Lithograph Co., Wichita, Kan.; 248. Western Lithograph Co., Wichita, Kan.; 249. H. S. Crocker Co., Inc., San Bruno, Cal.; 250. The E. F. Schmidt Co., Milwaukee; 251. Runkle-Thompson-Kovats, Chicago; 252. Jahn & Ollier, Chicago.

DECALCOMANIAS

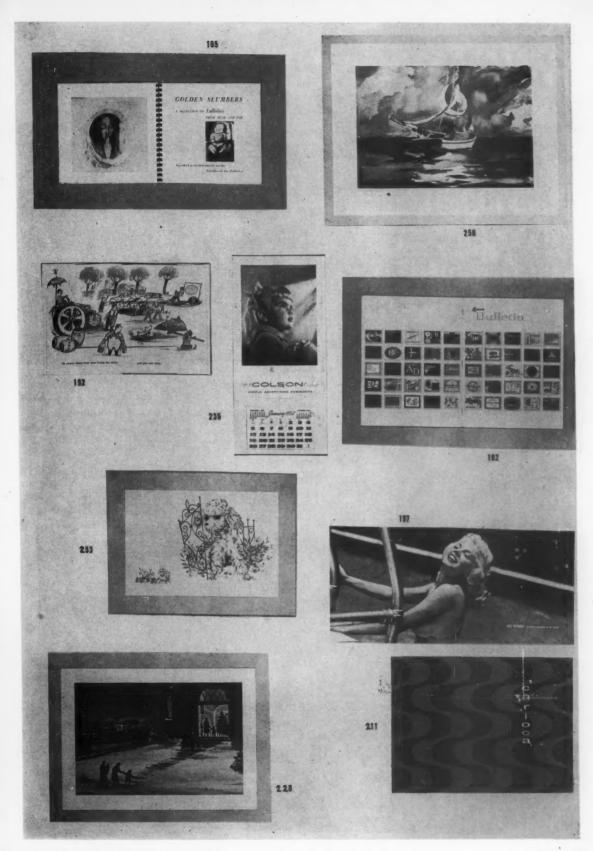
253. The Meyercord Co., Chicago; 254. American Decalcomania Co., Chicago; 255. The Meyercord Co., Chicago; 256. The Palm Brothers Decalcomania Co., Cincinnati; 257. The Meyercord Co., Chicago.

METAL LITHOGRAPHY

(See Metal Decorating Section in this issue)

SPECIALTIES AND NOVELTIES

265. Parker Enterprises, Inc., Los Angeles; 266. United Offset, New York; 267. J. C. Dillon Co., Inc., New York; 268. The Lehigh Press, Philadelphia; 269. The Crane-Howard Litho Co., Cleveland; 270. Forbes Lithograph Mfg. Co., Boston.



MODERN LITHOGRAPHY, April, 1957

"The inherent advantages of fast service and speed with the three-color method says Bob Tucker (left), sometimes let you in for additional corrections which would not be feasible with conventional methods. Customers do not hesitate to ask you to do things which sound slightly impossible.

How we got into

3-Color Offset

By Robert Tucker
President, Rochester Polychrome

I HAVE found, since getting into the "pleasing color" process—also known as "short-run" and "three-color"—that trade excitement over the process is justified by my increasing number of customers and interested prospects. They represent a new market that didn't exist before the advent of practical pleasing color.

Key to the success of the new process has been elimination of costly handwork through standarization and mechanization of photographic registration and masking techniques. Developed over the past 10 years at the Kodak Research Laboratories, pleasing color has put offset color reproduction within the budget reach of the smallest printing buyer.

Perhaps the most significant result of the introduction of pleasing color has been the impact it has had upon the printing market. Former short-run black-and-white customers, I have found, are upgrading their promotional programs with pleasing color reproduction. In chain-reaction, fashion color rapidly is becoming a byword for printing jobs from salesmen's catalog sheets to annual reports.

At Rochester Polychrome, we feel that we entered the pleasing color market at an ideal time. Incorporated in July of 1955, our operation benefited from the pioneering work in three-color performed at our sister company, Princeton Polychrome, of New Jersey. (See ML January, 1955, page 38). Successful darkroom, platemaking, and pressroom techniques developed at the Princeton, N. J.



shop were adopted from the outset at our plant. Consequent reductions in production and press time enabled our company to get off the ground in quality color work in slightly less than four months after the shop was opened for business.

My Initial Investment

Initial equipment investment was nominal, including such major items as a photo-color enlarger, a vacuum board, a 10 x 16" Davidson 251 press, and a Miehle "29." Also purchased was such miscellaneous equipment as a printing frame, stripping table, processing chemicals, matrix film punch, filters, "point light" sources and a color densitometer. An additional major expenditure was for a Robertson process camera. Although some shops find that they can get along quite well by farming out larger camera work, we felt that the increased versatility of in-shop work was more than worth the cash outlay. Also, making separations for the trade promised to be a profitable adjunct to our main printing operation.

Another factor that should not be neglected in setting up a pleasing color operation is an adequate humidification system. Having to allow for changes in material sizes due to extreme fluctuations in plant humidity conditions is more costly in the long run than the installation of adequate humidity-control facilities at the outset. Our humidification equipment cost \$500. At the present time, we are reviewing estimates for a complete air-condition-

Three-color job lithographed by Rochester Polychrome on newsprint

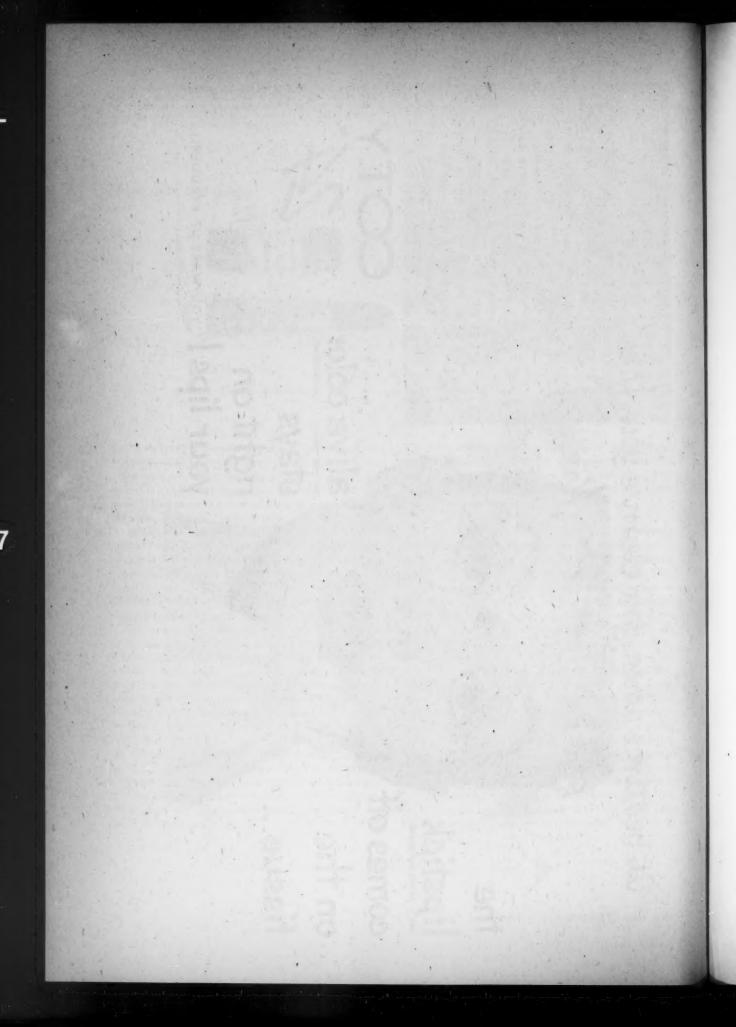


At bedtime when you cleanse your face...



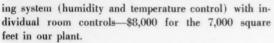
glide on fresh Coty "24" next morning, the night! They won't smudge or smear, Of course, you cleanse lipstick off at night, but with new Coty "24", your and your pillow proves it. When you its creamy texture protects lips from lips stay alive with color all through dryness and chapping, keeps them simply let it set without blotting.

COT TOO





Innovations and new techniques in three-color reproduction at Rochester Polychrome are often the result of on-the-spot brain-storming sessions (left) around the light-table. Here, Mr. Tucker and three of his technicians examine separation negatives and first proof for a current job. Rochester Polychrome plating-



First challenge faced by the lithographer embarking on a three-color program is the training of personnel in the techniques involved in turning out top-notch pleasing color printing. Actual presswork differs only slightly from traditional color techniques; hence, any capable pressman can become a pleasing color expert with a minimum of training and experimentation. In the darkroom, however, three-color techniques are a radical departure from conventional color operations. We found that the personnel best suited to handle the darkroom phase of the process are men with a general photographic background, not necessarily with graphic arts experience. Under the tutelage of a Kodak graphic arts technical representative and Princeton Polychrome, our darkroom men learned how to mask, expose, and make excellent separations in a comparatively short time.

How We Do Pleasing Color

The techniques we employ are similar to the recommended steps for pleasing color reproduction described in Kodak's literature on the subject. The customer's transparency is examined with a process densitometer to arrive at the density ratio between the highlight and shadow areas, which dictates the density value for our principal mask. The transparency then is placed in contact with pan masking film and positioned by means of a Kodak Matrix Film Punch. Exposure, development, and drying follow, and the resulting mask is placed in register with the original transparency. It has been found that an "unsharp" mask produces the best results. At this point, we make our red, green and blue exposures on Kodalith Pan Film, using a Kodak Gray Contact Screen, which yields screened negatives to size.

The screened negatives then are placed in contact with the presensitized aluminum plate (We use Harris, Enco,



room technician pin-registers negatives in vacuum frame in contact with presensitized plates. (right) Standardized procedure involving such equipment as the Kodak Matrix Film Punch has eliminated most of the costly and time-consuming visual register work at Rochester Polychrome.

and 3M plates.) emulsion down. A gray scale is employed as a sensitivity guide to assure correct plate exposure.

Once the job is on the press, we measure the ink coverage and density with the reflection head on our densitometer, using color bars to good advantage. To achieve optimum results with a minimum of effort and wasted motion, it is important to maintain standards, run to these standards, and check yourself all along the line to eliminate guesswork and costly errors. We have found that the more operations that can be performed to a standard reading or point, the lower the guesswork factor, and the lower the production costs on each job. A wise maxim is to let the densitometer be your guide. Rather than adding "a little more red," the resourceful printer will "run it to 0.90."

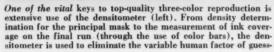
The Proofing Problem

To date, the major fly in the three-color ointment has been the proofing problem. Some of the early abortive "forced work" in three-color resulted in printers and customers alike getting burned. Perhaps some of the confusion was caused by the fact that Eastman Kodak Company suggests that extensive proofing tends to cancel out the basic economies of the three-color process—and yet customers were demanding proofs. Kodak has outlined the steps involved in photomechanical three-color reproduction; it is up to the individual printer to adapt these steps to each sales situation as it arises.

Actually, the "proofing problem" is no problem at all—unless the printer makes it so. When talking to a potential customer, it's a simple matter to explain the extra cost involved in proofing and subsequent corrections. The salesman who sloughs over the proofing situation to nail down a "hot" order often finds the low quote blowing up in his face when the customer demands proofs.

The three-color salesman must be more than a mere order-taker. If the customer is contemplating a special flier (quantity 500-2,000) to be sent to dealer-distributors







work. The proofing problem associated with early work in three-color is solved by employing various techniques, such as local correction on the original transparency and separation negatives, (right). By striking in a new color on the actual press run, corrections can be made easily.

announcing a new discount policy, our salesman quotes without proofing charges. He then explains to the customer that in his opinion the extra cost for proofing is not justified—this is a one-shot informational item and fidelity color reproduction is not a must. On the other hand, if the customer is planning to put out a flyer announcing a new product line to distributors, fidelity color reproduction may be a vital factor. In this case the customer probably should have proofs and the cost is included in the quote.

Thus the three-color salesman should be one-third printing consultant—one-third printing salesmen, and one-third practicing psychologist. He lets the nature of the job and its promotional objective dictate the advisability of recommending proofing and corrections.

"Pleasing color" is a natural for those frequent "dueyesterday" jobs. By careful use of the color densitometer, we can go directly from transparency to separations to plates to final press run in a matter of hours. Though the "hurry-up" customer will have to forego the luxury of proofs, he can have his job in jig time—a plus value that will appeal to most harrassed production men. And the finished job will be near-facimile color reproduction, in a hurry and at a price—a combination that's hard to beat.

Once several top-notch pleasing color jobs have crossed the printing buyer's desk and gone on their respective promotional missions, chances are a working relationship will develop between buyer and printer. The vexing to-proof or not-to-proof question will be left to the printer's discretion and the buyer will begin to realize the full advantages and economies of the pleasing color process.

How We Give Proofs

We have found that most customers want proofs—close to 100 percent, especially on the first job. Accordingly, we have made certain techniques standard operating procedure around the shop. By making local corrections on the original transparency and separation negatives, varying ink flow on the press, and burning-in and-out (varying exposure time to change color density in selected areas), we can make a wide variety of changes between proofs and the final run. In addition, through extensive use of the densitometer, the boys in our shop more often than not hit a customer-pleasing combination on the first proof.

Recently, we hit one job right on the nose as far as color was concerned and yet we were forced to color correct. One of our customers had shot transparencies of prototype models of some soon-to-be-introduced dealer display material—the plan being to prepared and distribute the dealer display flier first, and then to go ahead and run off the display material in the quantity dictated by dealer response. Proofs were submitted by mail and color correction was performed on the telephone. In addition, at the last minute the customer switched the signals on the color for the proposed display material.

No problem, however. We simply made an extra plate and struck in a sky blue over what had been an original green on the transparency. We even surprised ourselves on this one; the cost for corrections was about one-fifth of what it would have been if the firm had employed conventional color.

Like the bumblebee who can't fly, according to the laws of aerodynamics, we attempt a lot of things at Rochester Polychrome that older and wiser heads in the printing business would call impossible. For example, we were recently running a color-insert ad-sheet for Coty, Inc. In the middle of the run, Coty called from New York and asked whether we could give them a quantity of the same piece on newsprint stock! They wanted facsimiles of ROP newspaper tearsheets to merchandise their advertising through dealers. We ripped open a package of unsized newsprint and ran it through the press. Under the most adverse conditions—150 line screen on newsprint—the results were excellent.

Pricing Policies

Experience at Princeton Polychrome indicates that there is a tendency to underprice three-color printing. After about seven months of actual production experience, Princeton Polychrome found that they were forced to revise their pricing schedule upward about 33 percent. Benefiting from Princeton's experience in pricing, we have priced our work accordingly. A typical price would be \$195 for a three-color job, $3\frac{1}{2}$ x11", quantity 1,000. Often, customers prefer to use black type, which generally involves a cost of \$15 extra for the first thousand to the customer. We have found that the best color for type, if the customer does not specify the additional black plate, is the cyan, with magenta not too close a second, and the yellow an almost illegible third choice.

Over and above the basic price, we figure on \$35 per additional thousand sheets, with the price decreasing as the quantity increases. In general, we have found that many jobs can be sold directly from a standard price list, especially the stock items. You cannot, however, get away from individualized quoting when the job departs from a single set of separations.

Market Dictates Equipment

Although we started with a Davidson 251 and a Miehle "29," and recently added a Harris LUH, each prospective three-color printer should let his market dictate the range and extent of his press equipment. Perhaps the growth pattern for Princeton Polychrome might be of interest to printers contemplating entering the three-color field. Starting with a standard office duplicator, similar to our Davidson, Princeton found that as the runs increased in size and customers began calling for larger sheet sizes, there was a need for a new 14 x 20" press. The larger press opened up the 11 x 17" sales promotional literature, annual catalog, and catalog insert market for Princeton.

Similarly, we found the purchase of the larger press to be a wise one. The improved inking facilities and more precise register capabilities of our Miehle "29" and Harris LUH have added increased versatility to our color operation. And, as our customers became more quality conscious and demanded increasingly longer runs, we were able to supply optimum color range and brilliance with the larger presses. At the present time, the smaller press is used primarily for proofing and small production runs. A far better technique on the longer production runs has been running such jobs two, four, or six up, on the Miehle "29."

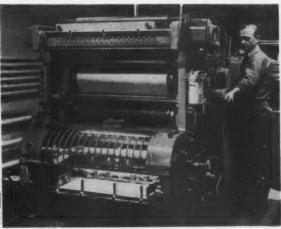
Still the standby for a large portion of the three-color work at our shop is the standard offset duplicator such as the Davidson press.

Ideal starting point for equipment for prospective three-color lithographers is the smaller offset duplicatortype press. Often the best way for a lithographer to get his feet wet in three-color is by farming-out color sep-(Continued on Page 159)

Still the standby for a large portion of the three-color work at Rochester Polychrome is the standard duplicator press such as this Davidson (left). Major application for the smaller press at Rochester Polychrome is for proofing and smaller production



runs. Mr. Tucker advises, however, that for runs over 10,000, the possibility of running the job two-up on a larger press should be considered. Use of larger presses, such as the Miehle "29," (right) has broadened the applications for "pleasing color."



MODERN LITHOGRAPHY, April, 1957

3-Color Direct Separation

2. Controls In Color

CAN you imagine trying to drive a car without a speedometer? Of course, those who have been driving for some time would be able to judge speed in some rough manner. No driver, however, could say without a speedometer whether he was going 30 or 35 miles per hour with any degree of accuracy. This same point can be applied to a densitometer. Trying to determine densities visually without the use of a densitometer is just as difficult.

We may say that both these instruments—the speedometer and the densitometer—are basically instruments of control. They do not function unless someone with the proper knowledge of their use operates them. The densitometer will not make color separations or masks for you, but it By John M. Lupo, Jr.
Technical Representative
Di-Noc Photographic Division
Di-Noc Chemical Arts



Figure 1. Notice that there are 100 units of light shining on the film, and only 10 units of light coming through on the opposite side.

will tell you, after you have made them, if they are correct. When properly used, the densitometer will tell you the type of mask and the range of the separation to make for a specific transparency.

The densitometer is the basic in-

strument of control in color separation. It will save you time, work and materials and at the same time provide consistency, accuracy and improvements in work standardization.

Let us discuss some of the terms used with the densitometer, so that we may be better able to understand it.

There are certain terms used in working with a densitometer that we must understand. These terms are transparency, opacity and density. Transparency is the measurement of the amount of light coming through a material. Opacity is the amount of light being held back and density is a mathematical way of expressing opacity.

Technically we define transparency as the ratio of the amount of light passing through the material as com-

Figure 2. Weston Photographic Analyzer Model 877, (left) manufactured by Weston Electrical Instrument Corp., Newark 5, N. J. Direct reading electric type densitometer. Density from .02 to 3.0. Can also be used as a photometer with a meter candle range of 0 to 650. This cannot be used for reflection density readings. Furnished with 24-page instruction booklet. Figure 3.

Photovolt Densitometer (right) manufactured by Photovolt Corp., New York City. An extremely accurate direct reading densitometer which has as accessories a reflection head for reflection density readings and a photometer unit. Photo shows transmission head on left and main unit on right. Furnished with elaborately detailed instruction book.





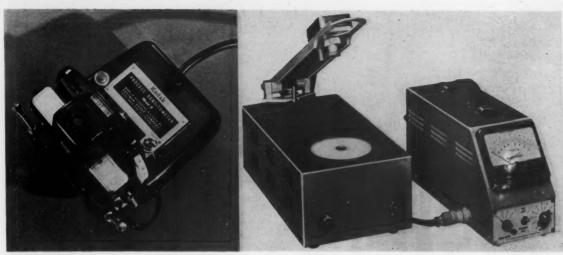


Figure 4. Kodak Process densitometer manufactured by Eastman Kodak Co., Rochester, N. Y. This is an electric comparator type densitometer which is also adaptable for reflection densities and for use as a photometer. Density readings to 3.0. Furnished

with instruction booklet. Figure 5. Densichron Densitometer manufactured by the W. M. Welch Scientific Co., Chicago. This is a direct reading densitometer with attachments for transmission, reflection and photometer readings.

pared to the amount of light falling on the material. In Figure 1, we see that there are 100 units of light falling on the negative and only 10 units of light coming through the film on the opposite side. Transparency is simply the measurement of this light coming through the film as compared to the amount of light falling on the film. We can say from Figure 1, that the transparency is 1/10th, for only 1/10th of the light is coming through.

Opacity is the measure of the amount of light being held back. For example in Figure 1, we said that 10 units of light are coming through the negative and consequently 90 units of light are being held back. Opacity is the measurement of this light being held back. Opacities are expressed in whole numbers and they are found by simply reversing the fraction of the transparency. As an illustration, in the previous paragraph we said the transparency is 1/10th. By reversing the fraction to 10/1 or 10, we have the opacity.

One of the most common terms used in photography is density. We generally refer to it as meaning the blackness of a photo image. Actually, density is nothing more than a mathematical expression of the opacity. Opacities used in photography run into very large numbers. For example, in a common line shot on litho film, we normally get an opacity

range of from 10,000 to 100,000. Working with these large numbers for the plotting of density curves is not practical, so we express the opacity numbers in terms of logarithms.

A logarithm is a mathematical term which we can explain as follows: Suppose we start by taking three numbers: 10, 100 and 1,000. We can say that 10 equals 10×1 , 100 equals 10×10 and 1,000 equals 10×10 and the logarithms of these numbers are 1, 2 and 3 respectively. A logarithm of a number is nothing more than the number of times 10 must be multiplied by itself to yield that number. We have to multiply 10

Figure 6. Transparency Marking Record Sheet. A consolidation sheet listing all important details pertaining to color separations. A useful guide for the experienced photographer and a must for the beginner.

TRANSPARENCY MASKING

		RECORD	PHEFI	108
				DENSITIES
UBJEC1			SIZE	P-E- 10-045
MAGNIFICATION			MENSITOMETER READINGS	
HENLIGHT MASK				
M-W-M	FILTER	EXECUTE	DEVELOPMENT	
PRINCIPAL MASKS				
MATERIAL	FIGTER	Exeptors	DENETORMENT	
2				
1				
SEPARATION NE	CATINES			
		teres permit	t DEVILORMEN	
CHAN				
MAG				
-			- 1	

just one time to get 10 and its log (shortened term for logarithm) is 1.

It is easy to see that by using logarithms, we can reduce large unwieldy figures to smaller, more manageable ones. Any number can be referred to in terms of a logarithm. These logs may be found in most mathematical reference books.

As a brief summary of what we have covered, let us say that:

Transparency is the ratio of light coming through a negative (or positive) as compared with what is falling on the negative. Transparencies are expressed in terms of fractions, starting with 1 and working down to 1/100,000 (and even smaller). The smaller the fraction, the less light the negative allows to pass through.

OPACITY is the measurement of the amount of light being held back by the negative (or positive). It is expressed in whole numbers and is found by reversing the fraction of the transparency. The larger the number of the opacity, the darker or denser a negative is.

DENSITY is a mathematical way of expressing the opacity by the use of logarithms. Densities are expressed in whole numbers and start with .1 (for all practical purposes) and range to 3.0 or 3.5 (for the general range used in color photography).

The instrument that is used for measurement of density is called a

when you think of

think of PITMAN

Join the many lithographers who depend on Pitman for fast, dependable delivery of film in all leading makes and sizes.

Each Pitman Branch has a large stock of Ansco, Dupont, Di-Noc, Gevaert and Kodak films and dry plates as well as the necessary developers and fixers.

To get what you want, when you want it, with absolute assurance of freshness, call Pitman!

HAROLD M. PITMAN CO.

Chicago 50, Illinois — 33rd Street & 51st Avenue Secaucus, New Jersey — 515 Secaucus Road Cleveland 11, Ohio — 3501 West 140th Street New York 36, New York — 230 West 41st Street Boston 10, Massachusetts — The Pitman Sales Co. 266 Summer Street

densitometer. The densitometer does a lot more than just measure one type of density. It can be used to measure the transmission densities and reflection densities. In addition, some densitometers can also be used as photometers. Let us explain these each in some detail.

In measuring the density of a negative or a transparency, we actually are measuring the amount of light that the negative itself holds back when light is being shone through the material. We call this "transmission density," for light is transmitted through the material. Transmission densities are used in describing all negatives and positives on film or glass plates.

The reflection density of a material is a measurement of the reflecting density of an opaque print. This is best illustrated by a subject such as an oil painting. We can easily measure the density (transmission) of a color transparency. The use of a reflection densitometer will just as easily measure the density of an opaque print such as an oil painting.

Most densitometers can also be used as photometers and this instrument measures what we might say is the quality of light. Just as a scale will tell you the weight of a material, the photometer tells you the amount of the light source. It is useful in exposure determination for contact, camera and enlarger use.

We have listed in Figures 2, 3, 4 and 5 some of the more popular densitometers used in the graphic arts field, together with notations pertaining to their characteristics. It is impossible here to illustrate the importance of a densitometer for color separations. Suffice to say that with this instrument, you can expect improvements in work quality. Without it you can expect makeovers and varied results. All of the densitometers are available through many of the graphic arts suppliers.

Density Range

Having considered the theoretical aspects of the densitometer, let us now see what they actually do and their use and applications in color separations.

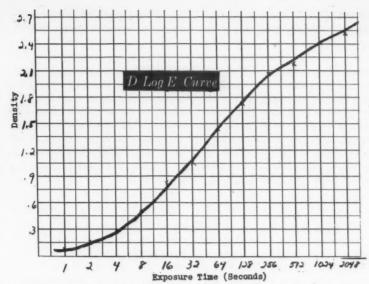


Figure 7. D Log E curve. In the plotting of this scale the density was plotted vertically against the exposure time. The complete plotting of exposure times and densities gave the curve shown above.

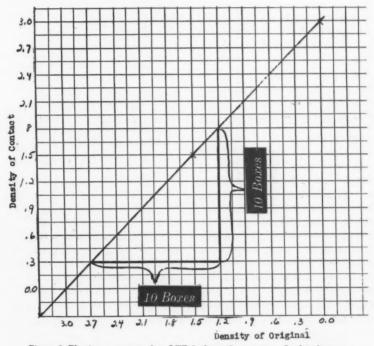


Figure 8. Plotting a contact of an LTF Scale to show gamma. In this diagram the density of the original scale was plotted against the density of the finished negative. The calculation of gamma is also shown. Gamma is found by dividing ing the number of vertical boxes by the number of horizontal boxes: 10 divided by 10 equals 1.

In color separations, it is important to measure the density range of the transparency. This density range is the difference between the lightest and darkest spots of the transparency. As an illustration, let us assume that we measure a transparency in the light areas reading a density of .5

and in the dark areas a density of 2.8. If we subtract the .5 from the 2.8 we have 2.3. This figure is referred to as the density range. It is simply the measurement of the density difference between the lightest and darkest portions of the transparency. This density range is im-

portant because we cannot print the tremendous density range that we get on color transparencies by lithographic means and consequently this density range is the basis of calculating the percentage of a correction mask that is necessary. (This will be explained in greater detail next month.) Generally we might say that a halftone screen will reproduce a density range of about 1.5, and the masking procedure reduces the density range of the color transparency so that it is within the range which we can print with by use of the halftone dot.

The record sheet shown in Figure 6 is a very helpful consolidation of all details pertaining to color separations and its use is strongly recommended to all who are just starting with color separations. This record sheet or others similar to this can be secured through your local graphic arts dealer or this illustration can be photographed and reproduced. This particular record sheet will be used as a reference for detail information on the masks and separations that will be covered in the additional articles of this series.

D Log E Curves

No doubt you have seen at some time or other a peculiar looking figure which is referred to as a D log E curve. I recall the first time I had seen it, I thought it to be some form of modern art. However, in learning more about it, I found it to contain a wealth of information very necessary to those interested in color. We are going to discuss it here in some detail as these curves will be referred to in later articles.

To begin with, let us clarify the name, D log E. The D in this phrase refers to density, and log E means the logarithm of exposure. When we speak of density, we are automatically referring to logarithms, because we defined density as the log of the opacity. In order to plot the density and the exposure we have to convert the exposure to a logarithm, and consequently, log E simply means the logarithm of the exposure. Now that we have reduced both the density

and the exposure to logs we can plot them and compare their values for further study. We may say that a D log E curve is nothing more than the plotting of the effect of exposure on the density of film. By increasing exposure, we know that density is also increased and the D log E curve will show the effect of this increase. By drawing the D log E curve we can get a clearer picture of what is going on than by just looking at rows of figures.

Let us make one of these curves to show what they actually consist of. To begin with, take a piece of film about two inches wide and 10 inches long. It will be best to use some type of continuous tone film for this experiment. Expose a very small strip of the film to the following exposure times, so the finished piece will have increasing density steps, similar to a film gray scale such as the LTF Sensitivity Guide.

Exposure Time in Seconds						After development we get the following densities										
1													۰			.12
2																.16
4																.29
8						4										.50
16									,							.78
32																1.08
64																1.38
128								۰								1.68
256																
512																2.24
1024																2.41
2048																2.58
4005																9 71

Let us plot these densities together with the exposures as illustrated in Figure 7.This finished curve is known as the D log E curve.

Gamma

Now that we have constructed a curve, to what use can it be put? One of the most important functions of a D log E curve that we are concerned with in color is the gamma of the curve. This term gamma refers to the measurement of the slope of the curve, and we may say that gamma is a measurement of the contrast of the developed negative. As an illustration of this, suppose we expose an LTF scale to a continuous tone film, using a contact light source with a C4 filter. Develop for eight minutes

in DK 50 1:2 (diluted one part developer to two parts water). We take readings of the LTF Scale as follows:

Step No.	LTS Scale	Developed Scale
1	00	3.00
2	15	2.85
3	30	2.70
4	45	2.55
5	60	2.40
6		2.25
7		2.10
8	1.05	1.95
9		1.80
10	1.35	1.65
11	1.50	1.50
12	1.65	1.35
13	1.80	1.20
14	1.95	1.05
15	2.10	.90
16	2.25	.75
17	2.40	.60
18	2.55	.45
19	2.70	.30
20	2.85	.15
21	3.00	.00

Let us plot these readings as shown in Figure 8. If you take note of this plotted line, you will see that it forms a perfect 45 degree angle, and we have perfectly reproduced the LTF scale, because if we were to contact the developed scale again, we would end up with the identical reproduction of the LTF scale. When this plotted line is a perfect 45 degree angle we say that it has a gamma of 1. This can be measured in the following manner. From the plotted line measure the number of boxes across to 10 boxes, and then up until you come to the plotted line again. Then divide the horizontal number of boxes into the vertical number of boxes and you have gamma. In this illustration we have 10 boxes across and 10 boxes up; hence, 10 divided into 10 gives 1. This is illustrated in Figure 8.

Let us go one step further. Suppose we contact the LTF scale as we did before, but instead of developing it for eight minutes, let us make three developments of respectively six minutes, four minutes and two minutes. The plotted curves of these contrasts are shown in Figure 9. We can see from this that we then have a gamma of .8 for the 6 minute development, .6

(Continued on Page 153)



Blattenberger



D'Alessandro



Starkey

quiz panel, round table discussions scheduled for

NALC Convention

in Chicago, May 2-4

A QUIZ panel and a series of round table discussions will provide the meat of the program for the 12th annual convention of the National Association of Litho Clubs. The meeting is scheduled for May 2-4 at the Palmer House Hotel in Chicago.

A quiz panel was a successful feature of last year's convention in Baltimore. This year it will be moderated by Frank Oehme, Chicago Lithographic Institute. Panel members include the following:

CAMERA: Charles Roeder, Roeder Studios, Chicago; CHEMISTRY: Paul Hartsuch, Interchemical Corp., Chicago; Color Separations: Frank Preucil, Lithographic Technical Foundation, Chicago; METAL DEC-ORATING: Harold Lee, J. L. Clark Manufacturing Co., Rockford, Ill.; PLATES: Donald Grant, Litho Chemical & Supply Co., Chicago: PRESS (sheet fed): Otto Smith, Photopress, Inc., Broadview, Ill.; PRESS (web fed): Reginald F. Wardley, National Bank Board Co., Holyoke, Mass.; and TECHNICAL DEVELOPMENTS: Michael H. Bruno, Lithographic Technical Foundation, Chicago.

The quiz panel is scheduled for Saturday morning. It will be followed in the afternoon by a series of round table discussions led by the following men:

CAMERA-MASKING: Edward Atkinson, Ilford, Inc., and Joseph Jiloti, Eastman Kodak Co.; Color Separa-TION: Rudolph Kienast, U. O. Colson Co., Paris, Ill.; INK: Emmett Flaherty, Gaetjens, Berger & Wirth, Inc.; PAPER: William Dodd, Champion Paper Co., Pasadena, Tex.; PLATES (surface): Eugene Bulinski, Runkle-Thompson - Kovats, Inc.; PLATES (deep-etch): Edward Farrell, Magill-Weinsheimer Co.; PLATES (presensitized metal): David M. Smith, Chicago Litho Products Co.; PLATES (presensitized paper): Anthony Ensink, Ensink Distributing Co.; PRESSES (small): James Gianpetro, 20th Century Press, Inc.; Presses (large): Harold Knuth, Inland Lithographing Co.; and ROLLERS AND BLANKETS: Karl Fox, Rapid Roller Co. All the men are from Chicago except Keinast and Dodd.

Registration will start at 10 a.m. on Thursday, with a general meeting

that afternoon. A full business meeting is scheduled for all day Friday, interrupted by a luncheon meeting at which a speaker will discuss newspapers by offset. Dr. Preston Bradley is listed as the luncheon speaker for Saturday. The meeting will be climaxed with the annual banquet.

Other special events will be a council of administration meeting and an officer's dinner Thursday evening, and an officers meeting Friday morning.

William O. Morgan, of the Chicago club, is convention chairman. He is immediate past president of NALC. R. Walter Blattenberger, of St. Louis, is president. Other officers of the national are Sol D'Alessandro, Cleveland, 1st vice president; J. Leonard Starkey, Dayton, O., 2nd vice president; Herman C. Goebel, Milwaukee, treasurer; and Eugene Hanson, Chicago, executive secretary.

The ladies' program includes a dinner and puppet show Thursday evening, Don McNeil's Breakfast Club Friday morning, and a bus tour of the city. Marshall Field & Co. will be host at a luncheon Friday.*

for faster, simpler color stripping, use



A LABEL YOU SHOULD KNOW

DINOBLUELINE FILM

Making positive or negative images as guides for fake or process color stripping can be a simple and economical process—when you use Dinoblueline Film. Just expose the key flat to a sheet of ready-to-use Dinoblueline under a carbon arc and develop. The resulting image is sharp, accurate, ghost-free, dimensionally stable and easy to use . . . it will not photograph on any type of plate. In addition, you can use Dinoblueline in making surface or deep etch plates, or in photocomposition work.

Ordinary artifical lights will not affect the undeveloped Dinoblueline, so that setting up the blue key for exposure is simplified. After the blue key is made, stripping can be done directly to the emulsion side, tape can be applied and removed without disturbing the emulsion, opaqueing can be done with any standard solution.

Dinoblueline Film has a .010" thick clear polystyrene base coated with a pre-sensitized, non-photographic blue key emulsion. Precise coating assures uniform thickness and coverage—the blue color remains consistent box after box. The heavy base provides excellent stability for accurate register.

Dinoblueline is available in standard sheet sizes ranging from $11^{\prime\prime}$ x $14^{\prime\prime}$ to $40^{\prime\prime}$ x $60^{\prime\prime}$ —special sizes on request. Check with your local Di-Noc Dealer.

DI-NOC CHEMICAL ARTS, INC.

PHOTOGRAPHIC DIVISION . 1700 LONDON ROAD . CLEVELAND 12, OHIO



branch offices: new york city, 295 madison avenue • chicago, illinois, 4522 west 16th street • utica, michigan, 45834 van dyke avenue resident representatives: washington, d. c.; tuisa, oklahoma; rochester, new york; and los angeles, california

* * Keeping Pace * * * *

with new developments

By Robert E. Rossell

Managing Director, Research & Engineering Council of the Graphic Arts Industry, Inc.

Part II.

THE RESEARCH and engineering The Research and a street of the research and the researc setting are not limited to phototypesetting. The machines that are often referred to as glorified typewriters are commercial realities and they are handling their share of typographic copy for platemaking. We can expect these machines to expand their usefulness, as research and engineering programs continue to pour out their dividends. We must remember that these machines are being produced by companies outside the graphic arts industry, and these companies are accustomed to providing for adequate research to keep them abreast of the latest technological developments.

Examples of these "cold-composition" machines are the *Electromatic Typewriters* of the International Business Machines Corporation; the *Varitypers* of the Vari-Typer Corp., a subsidiary of Addressograph-Multigraph Corporation; and the *Justowriter* of the Commercial Controls Corporation.

Automated Cameras

Last but not least in this field of cold composition, you should keep yourselves aware of two important new systems that utilize automated cameras to handle the product of these "glorified typewriters." The two systems are the Foto-List of the Vari-Typer Corp. and the Listomatic of the Commercial Controls Corpora-

Mr. Rossell's talk was given at the Graphic Arts March of Progress exhibit in Milwaukee, Dec. 13. While much of the material appeared in another form in articles carried in previous issues of Modern Lithography, it is felt that this article and the concluding section to appear next month, give a good overall survey of the new developments in lithography and related fields.

tion. These new pieces of equipment promise to bring important changes in the method of handling the production of directories, listings, catalogs, indexes or any printed material containing repetitive information. They are especially useful with items involving master records. The master record becomes copy for the camera. and all intermediate typesetting and proofreading operations are eliminated. Through the use of conventional automatic sorting devices such as IBM - it is possible to use the same copy, which may be the master record, to make up an alphabetical listing, numerical cross-listing or selective listing as required. The operation produces a film on which page make-up is done automatically in the camera. The product of the system, a right-reading negative, can be used to make plates for printing.

For all of you who have customers for the printing of catalogs, directories, listings, and the like, I urge you to investigate the potential impact of this type of machine on your market.

Letterpress Platemaking

Now let us see what has been happening in the letterpress platemaking field. Probably the most talked about innovation in the last five years in this field has been the Rapid Powderless Etching process for magnesium. By this process, devised by the Dow Chemical Company, magnesium printing plates are etched in a fraction of the time needed in the old "dragon's blood" or etching powder technique. And now that the Dow process has shown what can be done, other workers in the etching field have been busy trying to produce similar results with other metals such as copper, zinc, and combinations of zinc and magnesium. These developments will have a profound effect on the future of the letterpress industry.

According to reports coming from overseas, the making of original letterpress plates without resorting to metal or etching, which has been sought for nearly three-quarters of a century, has been achieved. The successful process is a washout relief technique called "Collobloc."

In England, a printer without any existing process or photographic department can install the necessary equipment and have inexperienced operators trained for less than \$5,000. There is no license; it is only neces-

sary to buy Collobloc foil. Runs of 150,000 have been reported and successful results have been achieved in using Colloblocs for electrotyping and for stereotyping if cold molding is used.

New Techniques

Now that we know something about the research and engineering activities directed to presses, color separators, phototypesetting and platemaking, let us examine some of the results that research has achieved in creating radically new techniques and improving some older ones.

Dramatic developments have occurred in a new process known as Xerography and in the older processes of aniline printing and screen process printing.

Xerography, a process based entirely on physical and electrical phenomena, is perhaps the most exciting research development. In its commonest form Xerography is a completely dry photographic process which utilizes a unique type of plate that is not destroyed by exposure to light. Hundreds of images can be made from a single plate. The process is a direct one which produces positive-to-positive prints, but negative-to-negative prints can be made if desired. Another form of this process, known as Xeroprinting, uses a plate not sensitive to light. Xeroprinting has been done in the laboratory at web speeds as high as 1200 feet per minute.

Xerography is now being used to produce paper offset lithographic plates in the office duplicating field. Plates can be on the press and producing copies within three minutes after receipt of copy.

Research activity directed at the older printing process known as aniline printing — and now called Flexography—has resulted in better press equipment and improved platemaking in this method.

Basically, flexographic printing is a letterpress operation. Fluid ink is applied by a form roller to rubber plates which transfer the image against a steel or rubber-covered impression roller. Almost all flexographic printing is done by rotary web press.

The advantages of Flexography are many, but I would like to enumerate a few of them:

- 1. Minimum press makeready.
- 2. Long plate life up to five million copies per plate.
- 3. High speed 300 to 1,000 feet per minute.
 - 4. Continuous pattern printing.
- 5. Considerable savings to the printer and the customer through the use of roll stock and roll printed stock.
- 6. Inline operations made possible by rapid drying.
 - 7. Availability of brilliant colors.
- 8. Stocks such as Cellophane, Polyethylene, Vinyl, and similar plastics which are difficult and sometimes impossible to print can be handled.

No process is without at least one disadvantage, and flexographic printing is no exception. Its overall quality with respect to fine type matter and other details such as halftone work is not as good as average letterpress, gravure or lithography.

Screen Process

Now let us turn our attention to the other printing method that research has done so much to improve — screen process printing. Sometimes it is known by other names — silk screen, serigraphy, mitography or screen stenciling.

Printers and their customers generally have thought of screen process printing as just a way of getting a job done for less money with a sacrifice in quality—a method suitable for the printing of local carcards, signs, and so forth. But this general idea is changing. Screen process printing, although a relatively new method in the graphic arts field, is joining with lithography, letterpress, gravure and flexography in producing the printed word in quality as well as quantity.

Screen printers and printing buyers are working with each other and with artists to combine art, materials and techniques that are best suited to the process. And they are producing a top quality product. Recognized business leaders are so enthusiastic about it that they are increasing their budgets for this type of printing. Consequently, there can be a resulting decrease in the demand for other better known forms of printing.

Because it can be used on practically any surface of any size, this process offers a solution to problems of size, shape and quantity that confront other printing processes. Many plastics and other surfaces can be printed only by screen process, and, generally, this process is required whenever daylight fluorescent inks are used.

There is no doubt that screen process mechanization is making greater inroads into the graphic arts. Efficient screen-process presses are in use commercially, and the space-wasting, labor-using, wooden drying racks are becoming obsolete.

This tremendous development of screen making in recent years is largely due to the many improvements in the knife-cut stencil and to the successful progress in the production of photographic screens by Eastman Kodak Co. and E. I. duPont de Nemours. The stencil, which took hours to prepare yesterday, can be made in a matter of minutes today by using conventional lithographic photoengraving cameras and other platemaking equipment. These photographic screens are being marketed through the normal graphic arts outlets. Also, the major ink suppliers have increased their volume of business by adding a line of screen process inks.

Electrofax

Another unique process in this field is *Electrojax*. It offers a new high-speed, dry process for photographic printing, photo-resist applications, and a variety of other uses of great potential. Photographic speeds are of the order of 10,000 to 100,000 times those of conventional diazo and dichromate processes, allowing production of offset and letterpress plates

(Continued on Page 157)







Bayard S. Shumate, (left) president, Shumate, Inc., Lebanon, Ind., new president of the Rotary Business Forms Section, PIA, with Max Clarkson, president of Clarkson Press, Inc., Buffalo, and past president of the section at meeting in Chicago, Feb.

20-22. Center: Orville Dutro model C3C web offset press. Right: Samuel H. Isaacs, Bert Woldring and M. J. Drackett of the materials handling panel held on the final day of the meeting at the Edgewater Beach Hotel, Chicago.

PIA Group Sees New Roll-Fed Presses

Hears talks on expanding forms business, materials handling

NEW models of rotary offset presses for printing business forms were on display during the February meeting in Chicago of PIA's rotary business forms section. To make it easy for the visting printers, press manufacturers and their local representatives arranged escorted trips to downtown sales rooms or to Chicago area plants where their equipment was in operation.

American Type Founders took interested parties to the recently opened new plant of Uniform Printing & Supply Co., on Chicago's far northwest side, where demonstrations were made of the ATF Green Hornet press, an $11\frac{1}{2}$ x 17", two-color offset model, with cutoff delivery up to 30,000 per hour.

Orville Dutro & Son, Inc., demonstrated its $17 \times 12\frac{1}{2}$ " roll to sheet web offset press at the downtown salesroom. Features include punching, perforating, numbering, pile delivery, flat pack or zig-zag folding. E. G. Ryan & Co., agents for various printing equipment makers, put on demonstrations at its headquarters of the OPM, two-color rotary offset press (roll-to-roll or sheet-to-sheet) with sheeting and rewinding speeds up to 35,000 per hour. The press is $8\frac{1}{2} \times 14$ " with cutoff of either $8\frac{1}{2}$ or 17".

It will print one side, number, imprint, cross or running perforate, register and file punch and trim in one operation. Another press was on display in Milwaukee, where the Wisc-out Business Forms Division of O. L. Schilffarth & Co. had in operation a two-color dry offset, 17 x 18" rotary offset press with rewinder, which is made by Hamilton Tool Co.

Also shown at the E. G. Ryan office was a Harper collator with speeds up to 10,000, 8½" cutoffs per hour, together with a Harper set maker. Didde-Glaser, Inc., demonstrated its Speed-Klect sheet collating machine at a plant within walking distance of the convention hotel and still another collating machine, made by Schriber Machinery Co., was demonstrated in the Chicago plant of Everready Mfg. Co.

Expansion Prospects

At the convention sessions business forms printers were advised by Garner Dunkerley, Jr., president of Ennis Tag & Salesbook Co., Ennis, Tex., to "avoid extremes" in planning for expansion this year. Economic conditions, which he appraised in some detail, do not, he said, warrant either optimism or pessimism. As to the future, his own company, which oper-

ates offset and other equipment, is following a "wait and see" policy, he said, and buying only for replacement.

Mr. Dunkerley cited figures showing that the rotary business forms branch of the graphic arts sold \$308,000,000 worth of sales books, register forms, unit sets and strip forms during 1956. Some 220 new rotary form presses are on order for 1957 delivery, he said, and with this additional capacity from \$40 to \$50 million of new business could be produced, he estimated. But the industry is operating now at less than 66 2/3 percent of its three-shift capacity, he stated. This, he said, justifies caution in making any plans for expansion.

Another speaker during the meeting was Gordon R. Rohde, vice president in charge of manufacturing for Reynolds & Reynolds Co., Dayton, O., who related an account of how his company's manpower problem was solved when it added roll-fed business forms presses to predominantly sheet fed facilities five years ago. Among other topics discussed were mechanized materials handling in form printing plants, paper standards, the relation of costs to profits and how to use the PIA ratio studies. Luncheon speaker on Feb. 21 was

(Continued on Page 153)

READERS:

Are you taking full advantage of your lithographic magazine?

THE staff of Modern Lithography has been trying, in several important ways, to make the pages of your magazine more valuable to you. Increased in-person coverage of litho club and trade association meetings has been one way. Interpretative articles on subjects of vital interest to you is another. That's the reason for our recent series on presensitized plates, three-color direct separation, and visits to typical litho shops and for our expanded coverage of the litho news in all parts of the United States and foreign countries.

Our climbing circulation figures indicate your appreciation of our efforts. But are you taking full advantage of your lithographic magazine? In past months, many of you have availed yourselves of the services of our two regular columnists, Theodore C. Makarius (Press Clinic) and Herbert P. Paschel (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question, why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

(Questions will not be answered by mail, but in an ear	Mr. Paschel (Photography)
Name	ly issue of Modern Lithography)
(Only your initials will be used)	ny

LTF Reviews Research

Committee hears reports on 20 active research projects conducted at Glessner House

By H. H. Slawson
Chicago Correspondent

A CTIVITIES of the Lithographic Technical Foundation's research department during 1956 were reviewed at a meeting in Chicago, Feb. 28 and March 1, attended by approximately 150 members and guests of the Foundation's research committee. Reports indicate that it was a very successful year for the Foundation in every respect.

In opening the conference at the Conrad Hilton Hotel, Z. Wayne Adams, chairman of the LTF research committee, characterized research as "the lifeblood of the lithographing industry." Research, he said, is always vital to progress, but even more so, now that other graphic arts branches are attempting to place themselves in a more competitive position by setting up research facilities and programs patterned on the LTF model.

Twenty active projects were conducted at the Glessner House laboratories during 1956, according to Michael H. Bruno, research director. Outstanding among specific accomplishments he listed a color reproduction survey, the redesigning of the LTF color chart (See ML March, page 66) and certain tests made for the Book Paper Manufacturers Association which also yielded important data of value in the Foundation's direct work for the lithographing industry. (Mr. Bruno gave a similar report at the annual LTF meeting in New York. See ML March, page 86).

Color Survey

A highlight of the two-day meeting was Frank Preucil's report on the color reproduction survey. The goal of this work, in which he was assisted by staff physicist Edward Brody, is to develop a better understanding of all the problems affecting color reproduction and to hunt for other possible factors not now suspected of involvement.

Color correction by masking, said Mr. Preucil, has not benefitted the entire litho industry to its full capability because of lack of knowledge of the best masking procedures for the variety of ink, paper and press conditions found in commercial production.

A 21-step test strip master was designed and duplicate positives were sent to cooperating companies doing considerable color printing. Fifty companies returned 155 strips representing 170 press runs and over 10,000 densitometer readings. Data were charted on graph paper and results, Mr. Preucil said, indicate that about three-fourths of the color reproduction being done at these plants could not be fully corrected by masking procedures. Errors, he said, ranged from 25 to 70 percent off the true color sought. Under these conditions, he declared, more complicated masking or hand correction must be used.

Need Better Inks

"Color correction is not a substitute for pure ink colors," Mr. Preucil asserted. "The greatest overall benefit to our industry would probably be from economical inks of better hue, purity and balance, rather than from more complicated masking." A number of ink manufacturers, he added, are working with the Foundation to

provide the ideal inks indicated as needed. Use of balanced inks, he added, should simplify and improve color correction appreciably.

In reporting on the work done for the Book Paper Manufacturers Association, Charles Borchers explained that tests were run on 37 samples of offset paper for (1) loose lint dust and fuzz; (2) piling of coating on the blanket; (3) pick resistance; (4) ink drying; and (5) moisture content. All tests were rechecked by the Institute of Paper Chemistry and the final report, containing 104 pages, including 70 pages of tables, will, when completely analyzed, be of extreme importance.

Diazo Studies

Charles Gramlich's report on his studies of diazo coatings was an absorbing account of the "sleuthing" done by scientists to trace down and discover the "why" of elusive factors in the problem at hand. The diazo studies were conducted under Air Force contract to develop coatings for precoating plates that will not be affected by temperature and relative humidity.

Work is continuing this year and, during 1957, Mr. Gramlich hopes an all inclusive solution to the problem of coating diazo plates will be found. In conjunction with the diazo studies, work was also done on surface treatments for aluminum. Results with a number of varied treatments were unsuccessful, but the search will be continued, Mr. Gramlich said.

In a study of ink dot scum, results indicated that aluminum is susceptible to pitting corrosion under certain conditions. A method was developed for producing ink dot scum at will, which has made it possible to evaluate effects of varied materials and treatments on the press. Some worked, some didn't and one conclusion from the tests was that scumming is related to electrolytic corrosion and that graining makes the problem worse.

Other subjects discussed at the meeting were the following:

Gum arabic substitutes, Mrs. Joanne Heal; ink transfer studies, Mr. Borchers; quality studies and tests,

(Continued on Page 151)

ask yourself these

QUESTIONS

. . . they may
help you improve
your litho business
this year

3 3

HOW DID your business do during 1956? That is the question asked in a recent newsletter sent out to its members by the National Association of Photo-Lithographers.

The business picture for the past year now has pretty much been relegated to history, the bulletin points out, but now is the time to take inventory of your lithographic operation with an eye toward improving the picture in the remaining months of 1957. To do that, the NAPL newsletter suggests a list of pertinent questions to aid lithographers in taking an inventory of their shops.

Some of the questions follow:

Selling

How much undesirable business did you take in last year? Was this spread generally among all salesmen? Was it the result of poor salesmanship or was it house business?

Do you know how much volume you need to break even?

Have you established a sales budget and quota by product lines and sales territories?

Are you after more sales or do you need a better balance between sales of various products? For example, are you producing a large quantity of low priced greeting cards and a small quantity of high profit displays?

Are your sales policies sound and accepted by your customers?

Are your sales policies practical under today's conditions and for the long pull?

Do you have any natural advantages over your competitors? Are you taking full advantage of them?

Do you really know your competitors? Are you known to be friendly? Do your competitors have respect for you?

Is new competition developing in your specialty market? Direct? Indirect? How aggressive and what can be done about it?

Does your present equipment enable you to stay competitive?

Do you employ good thoroughly trained salesmen?

Is your compensation plan fair and adequate, both as to the amount and method of determination? Does it provide incentives for a good sales job? Are sales territories well laid out? What can be done to improve the morale of your sales organization?

Do you find that your estimator is being flooded with estimates most of which never materialize into orders? Are your salesmen familiar with the kind of work best suited for your plant?

Does your company handle inquiries, orders, complaints and correspondence expeditiously?

Are your price lists up to date and clear?

Are your sales methods economical and effective?

Do you supply good, adequate promotional materials to your salesmen?

Is your ratio of promotion and advertising expense in line with your direct selling expense?

House Policies

Do you have a house manual outlining the policy of your company on selling, who has the right to purchase outside work, the estimating copy and order writing procedure, who is responsible for customers' credit? Could you eliminate many headaches and establish a better understanding between everyone if you set up such a manual?

Do you allow salesmen to enter your plant and to tell your productive workers how and when to run a particular job?

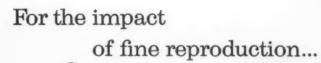
Do you indicate on estimates or order acknowledgements you send to your customers that after a normal period you charge for storage and handling finished lithographed material that has been billed but for which shipping instructions have not been received?

Do you require that all changes in specifications, delivery dates, etc., be reduced to writing?

Do you insist that all extra charges, author's alterations, billing dates, etc. agreed to between the salesman and the customer be reduced to a written memorandum rather than given verbally?

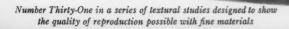
What items of cost should be considered in setting up a mark-up schedule? Do you know what part of your

(Continued on Page 149)



Kromekote®

THE CHAMPION PAPER AND FIBRE COMPANY HAMILTON, OHIO



ALBERT GOMMI

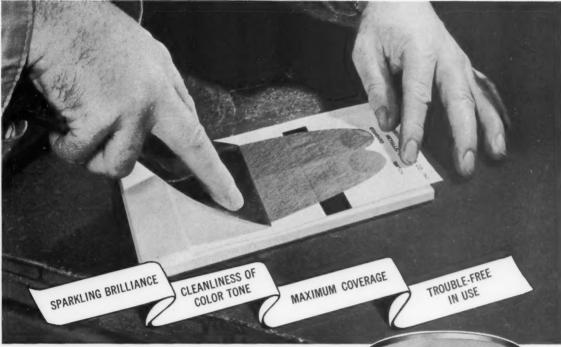


General Office: Hamilton, Ohio

Mills at HAMILTON, OHIO . . . CANTON, N. C. . . . PASADENA, TEXAS

For full information on how this advertisement was produced, write our Advertising Department, Hamilton, Ohio

THE Elegance of GOLD



The challenge of successfully adapting gold bronze powders to offset printing has finally been met by the application of the MD No. 90 Series of Super Fine Offset Gold Bronze Powders. They are available in three popular shades—Pale, Rich Pale and Rich Gold.

Your ink maker should be consulted regarding the type of metallic ink varnish best suited to the process.

MD will gladly cooperate with your ink maker in meeting the desired standard of perfection.

The answer to this challenge has been met in practice—repeatedly.





GOLD BRONZE
The Mark of Merit

METALS DISINTEGRATING COMPANY, Inc.

GENERAL OFFICES: Dept. L, Elizabeth B, New Jersey

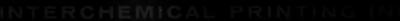
Lithogena

IPI's superb litho ink for brilliance beyond compare

Lithographers who want the best demand Lithogem. The colors attain a sparkle unmatched anywhere... stay cleaner, stronger... keep their gem-like brilliance even when dry. Lithogem inks are more foolproof on the press, set faster, remain uniform in body and tack. You will find Lithogem inks, regular and process, at all IPI branches and service stations—a complete litho ink service under local experienced ink men, specialists in your individual needs. For prompt ink service with a personal touch, call IPI.

THE ART OF HERALDRY. In the beginning, heraldry was a practical matter of "brand recognition." Armored knights were identified in battle and tournament by the symbolic and decorative devices emblazoned on their shields. Today, these heraldic devices are subjects of genuine interest to scholars and genealogists in search of historical color. The example shown here in IPI Lithogem colors was created especially for this series of IPI advertisements.

IPI, IC and Lithogem are trademarks of Interchemical Corporation



CORPORATION

DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y







Available in a choice of 17 colors, Siebold Safety Inks are invariably specified for producing Pantographic designs in printing checks and other special types of financial documents.

Diebold

indispensable in printing CHECKS, BONDS, FINANCIAL DOCUMENTS.

> Just like a top-flight bowler who "strikes" consistently, you'll make a "pocket hit" with your customers when you use these high quality, dependable color inks. Send for our color book.

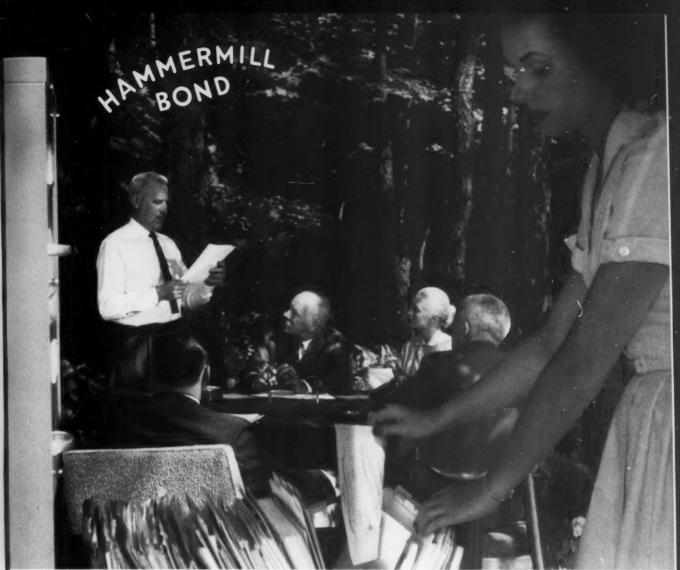


"OVER HALF A CENTURY" OF SERVICE

MEMBER: Lithographic Technical Foundation -National Association of Photo Lithographers-National Association of Printing-Ink Makers-National Printing-Ink Research Association-N. Y. Employing Printers Association.

EVERYTHING FOR THE LITHOGRAPHER MANUFACTURERS OF PRINTING, LITHOGRAPHIC INKS AND SUPPLIES 150 VARICK STREET, NEW YORK 13, N. Y

SIE 3000



THE MAGIC OF NEUTRACEL

Hammermill unlocks the secrets of hardwood ... makes printing on Hammermill Bond look even better

When you see printing on the new Hammermill Bond—letter-press, offset, engraving—you'll see a difference. And you'll feel the difference, too. It's all the result of a new and exclusive Hammermill pulp—Neutracel®

With Neutracel, Hammermill now unlocks the superior papermaking properties nature grows in hardwoods. Papermakers have tried for years to bring these finer qualities to fine paper. Now Hammermill has done it! Neutracel's hardwood fibers knit closely with other quality pulps—to give you Hammermill Bond with a more uniform formation. Hold a sheet of the new Hammermill Bond up to the light and you'll see this uniform distribution of fibers—the better formation that makes for a smoother, velvety surface for more readable printing, typing or writing.

With Neutracel, Hammermill Bond has greater bulk and opacity to lend importance and prestige to business and advertising printing With its exclusive Neutracel process, Hammermill has taken a \$6,000,000 step forward to bring you Hammermill Bond that 1) prints better—ask your pressman; 2) types better—ask your secretary; 3) looks better—see for yourself. Hammermill Paper Company, Erie, Pennsylvania.



with Neutracel's finer fibers, costs no more



Whites are gayer on Hammermill Opaque whiteness. A whiteness matched by Hammermill Opaque. Whatever you print on Hammermill Opaque—offset or letterpress—whites are whiter. Colors come up brighter, too—breathe life into all your printing. Even black and white jobs have more snap. And Hammermill Opaque's greater opacity minimizes show-through.

Offset lithographed on Hammermill Opaque, Vellum finish, 25 x 38–70 (17 x 22–28) Manufactured by

HAMMERMILL PAPER COMPANY . ERIE, PENNSYLVANIA

PHOTOGRAPHIC CLINIC

chel Line

By Herbert P. Paschel
Graphic Arts Consultant

Resolving Power

Q: How can we establish the resolving power of our lens?

T.A.G., NEWARK

A: The resolving power of a lens is influenced by so many variable factors that resolution data for one set of conditions is not valid for all other conditions. To give you an idea of the complexities, consider the following. The focus and stop used affect resolving power. So do the spectral composition of the illuminant and the detail contrast of the subject.

The speed, spectral sensitivity and other physical and chemical properties of the photographic emulsion are additional and variable factors. Finally, the actual exposure times; composition, concentration and temperature of the developer, as well as the time and technique of development have great influence on the results.

All of these factors must be understood and properly coordinated to make resolution data valid. To be fully acquainted with the subject before you proceed with any tests, I would suggest you consult several good books on the subject.

Decreasing Screen Distance

Q: When you are back against the camera back with the screen holder, what does one do to decrease the screen distance even more? I want a flatter negative.

B. J. G., OKLAHOMA CITY
A: If the screen is actually touch-

It is impossible for Mr. Paschel to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.

ing the films, then, obviously, it is physically impossible to move the screen closer. However, with some cameras there is still some separation between screen and film when the screen bars are touching the film. This calls for some alteration of the screen bars to extend the screen beyond the edge of the screen bars. If this is not the obstacle, or if it is and it is not possible to correct it, then the only remaining solution is to get the screen as close as possible and use smaller apertures (f: stops).

With the same screen distance, a 90 ratio aperture system will produce flatter halftones than a 64 ratio. Using smaller stops will, however, require considerably more exposure time. Using still development, or cutting down on the agitation rate in development also will flatten out the halftones somewhat.

Fogged Highlights

Q: Why do I sometimes get fogged highlights? When I paint the reflectors of my arc lamps I eliminate this problem but, about a month after painting, the trouble comes back again. When I operate our other camera I have no trouble at all.

H.C.D., WASHINGTON, D. C.
A: At first hand there seems to be some connection between the arc lamps and the appearance of fogged highlights. To rule out the possibility of coincidence, when this happens again switch the lamps from the other camera to the one giving you trouble.

If the trouble is evident with one set of lamps and not the other then the arcs may be the cause.

If so, it is possible that as the reflectors become tarnished you either change the lamp to copy distance and angle, or increase exposure time, to compensate for the decreased light on

the copyboard. In either case you are changing the conditions.

If your lens has a high flare factor either of the two changes could contribute to fogged highlights. I would suggest you test the lens for flare using the test devised by J. A. Yule of Kodak's Research Labs. You should also check the camera for light leaks in the bellows and lensboard, etc. Light leaks sometimes prove troublesome at certain camera settings (focus, lamp position, etc.), and not at others.

Vacuum Holder

Q: Where can I obtain a vacuum film holder to fit my camera which has only a stay-flat back?

E. B. O., NEW YORK

A: If a standard vacuum film holder is not available for your brand of camera you might be able to buy

(Continued on Page 157)

GPI

all types of ink from a single source

Whatever process you use...
letterpress, gravure, flexographic,
offset...you'll find that GPI inks fill every
pressroom need. 7 famous brands are represented by
the GPI label — covering the widest range of special and
conventional applications.

You can be sure the ink GPI recommends—whether from stock or a custom formulation blend—will meet your requirements exactly ... and economically. Years of practical experience stand behind GPI service. Remember, the solution to any printing ink problem is only a phone call away ... at GPI.

7 famous brands: American inks • Eagle inks • Fuchs & Lang inks • Kelly inks morrill inks • Sigmund ullman inks • Chemical color & Supply inks



BRANCHES: Chicago · Cincinnati · Cleveland · E. Rutherford, N. J. Ft. Worth · Kalamazoo · Kansas City · L. I. City · Los Angeles · Milwaukee N. Bergen, N. J. · Norwood, Mass. · Philadelphia · Portland, Ore. · San Francisco · Seattle · St. Louis · St. Paul · Canada: London · Montreal Toronto · Tacuba, Mexico.

General Printing Ink Company

10th Street & 44th Avenue, Long Island City 1, N. Y.

DIVISIONS OF SUN CHEMICAL CORPORATION

HORN (paints, maintenance and construction materials, industrial coatings) • WARWICK (textile and industrial chemicals) • WARWICK WAX (refiners of specialty waxes) • RUTHERFORD (lithographic equipment) • SUN SUPPLY (lithographic supplies) • GENERAL PRINTING INK (Sigmund Ullman • Fuchs & Lang • Eagle • American • Kelly • Chemical Color & Supply Inks) • MORRILL (news inks) • ELECTRO-TECHNICAL PRODUCTS (coatings and plastics) • PIGMENTS DIVISION (pigments for paints, plastics, printing inks of all kinds) • OVERSEAS DIVISION (export) • A. C. HORN COMPANY, LIMITED (Canada) • GENERAL PRINTING INK CORPORATION OF CANADA, LIMITED • FUCHS & LANG de MEXICO, S. A. de C. V.



THEY'RE turning out some good looking litho jobs with gold ink at the New York School of Printing. ML received one the other day show-



ing Ben Franklin superimposed over the Declaration of Independence. It was used as a hand-out at the School in Manhattan during Printing Week. Vincent Scialabba, offset instructor at the school, who supervised the job, mentioned some of the details. The heavy lay of gold would seem to indicate several passes through the press, but the sheet went through a 17 x 22" Webendorfer only once, with students assisting on the job. Press run was 1,500. A medium gold ink was used to reproduce the picture, which was a 120 screen halftone.

Mr. Scialabba said he has been getting excellent results with gold ink lately after experimenting with Primrose Yellow as an additive. Many such jobs formerly were done with two passes through the press, he advised.

MI.

Another interesting offset job employing gold ink came to our desk

from Harris-Seybold Co. A full 36 x 491/2" press sheet, folded four times, tells the story of two new Harris 36 x 491/2" presses. A statement accompanying the specimen explains that, to produce a satisfactory lay of gold ink, the lithographer who ran the job put the sheets through the press twice. "Although the press carried sufficient ink for one-pass printing," it added, "there was a tendency for the plates to plug up after approximately 1,500 impressions. By giving the sheet two light passes, the plugging tendency was overcome. The reverse side of the broadside shows four-color views of the two new presses.

ML

That well-known graphic arts designer—Ben Shahn—was the subject of an exhibit in New York last month. Forty years of his work were on view at the American Institute of

Graphic Arts. The exhibit included several hundred examples of his work, many of them executed on commission, including posters, magazine illustrations, record-album covers, book illustrations, brochures and advertisements.

MI

In addition to all the other barriers they have hurdled in recent years, women may soon be making a frontal attack on the graphic arts. First straw in the wind is the report from Carnegie Institute of Technology that a young Chicago girl now is in the last lap of her education which will make her the first woman to receive a Bachelor of Science in Printing Management.

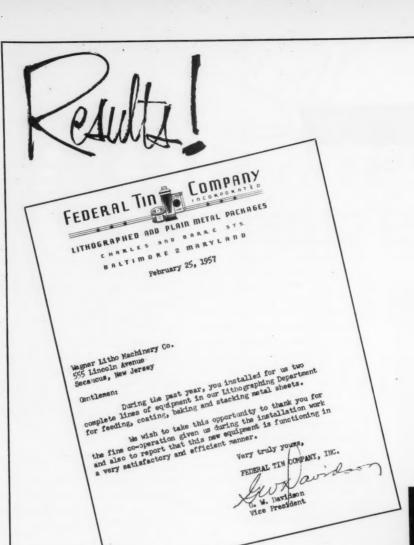
She is Miss Elaine Harris, a former assistant production editor of the University of Chicago Press and a graduate of the University of Chicago. She entered CIT last September and will graduate in June, 1958 after completing a two-year course.

Next thing you know, they'll let 'em vote!

ML

Hub Mail Advertising Service, Inc., whose telephone number, HUbbard 2-6245, spells out Hub Mail, became the first commercial printing plant to install a Photon photocomposition machine, in Boston last month.





The Metal Decorator interested in Results always calls upon Wagner. More than 60 years experience in the Metal Decorating Field.

G-D: MVC

THE WAGNER LINE INCLUDES:

ROTARY-AIR OVENS
D.E.F. OVENS
AUTOMATIC STRIPPERS
ROLLER REVOLVING MACHINES
LABORATORY COATERS
SYNCHRONIZING DRIVES
VARNISHING MACHINES
SPOT COATERS
AUTOMATIC FEEDERS
AND
OTHER SPECIALIZED EQUIPMENT

When thinking of Progress - think of Wagner!

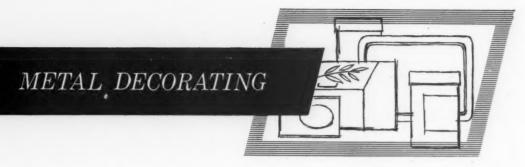
WAGNER LITHO MACHINERY

Metal Decorating Machinery

555 Lincoln Avenue, Secaucus, N. J.



Division



LNA Awards:

Caspers Tin Plate Leads Again

CASPERS TIN PLATE CO., Chicago, again won three of six awards in the metal decorating division of the LNA Lithographic Awards Competition and Exhibit. The company had captured half of the awards in the previous competition. Two trays, decorated for Quaker Stretcher Co. and Meldrum Mfg. & Engr. Co., were judged winners, along with a design on metal for Olive Can Co.

Other winners in the annual competition were Davidson Art Sign Co., Covington, Ky., with a job for Shaefer Brewing Co.; J. L. Clark Mfg. Co., Rockford, Ill., with a tray featuring foreign stamps; and Robertson Sign Co.,

Springfield, O., with a sign for Schlitz Brewing Co.

The six metal decorating awards were just a small part of the overall exhibit, which numbered 270 winners in all. The winning pieces will be on display at the Lithographers National Association convention April 1-3 at the Greenbrier Hotel. Later they will be shown at other cities. All winners will receive certificates this month. The lithographers will receive awards of equal merit, a practice started with last year's competition. Photos on the next page show the metal decorated winners. Numbers on the photographs refer to the award as listed below.★

Award	Title	Client	Lithographer
259	Schaefer Invitation to Enjoyment	The F. & M. Schaefer Brewing Co., Brooklyn	Donaldson Art Sign Co., Covington, Ky.
260	BERMUDA TRAY	Quaker Stretcher Co., Kenosha, Wis.	Caspers Tin Plate Co., Chicago
261	MAY Co. BUNTE BROTHERS DESIGN	Olive Can Company	Caspers Tin Plate Co., Chicago
262	FOREIGN STAMP TRAY	Lith-O-Ware Products, Inc., Chicago	J. L. Clark Mfg. Co., Rockford, Ill.
263	WEST VIRGINIA STATE TRAY	Meldrum Mfg. & Engr. Co., St. Paul	Caspers Tin Plate Co., Chicago
264	SCHLITZ PULPBACK SIGN	Schlitz Brewing Co., Milwaukee	Robertson Sign Co., Springfield, O.

Maximum Daily Production... Maximum Size Range...

of Gathered, Saddle-Stitched and Trimmed Booklets

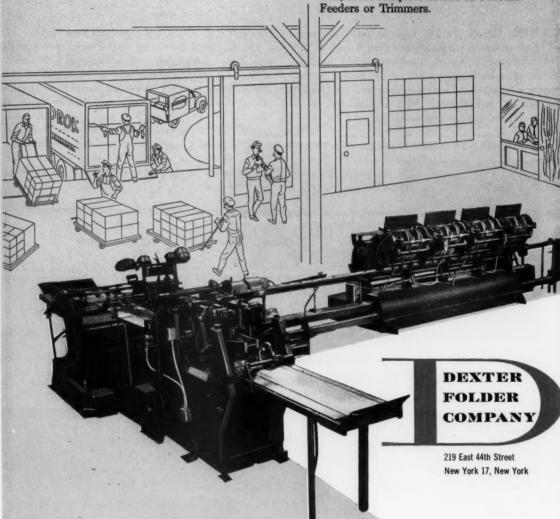
THE MC CAIN-CHRISTENSEN COMBINATION

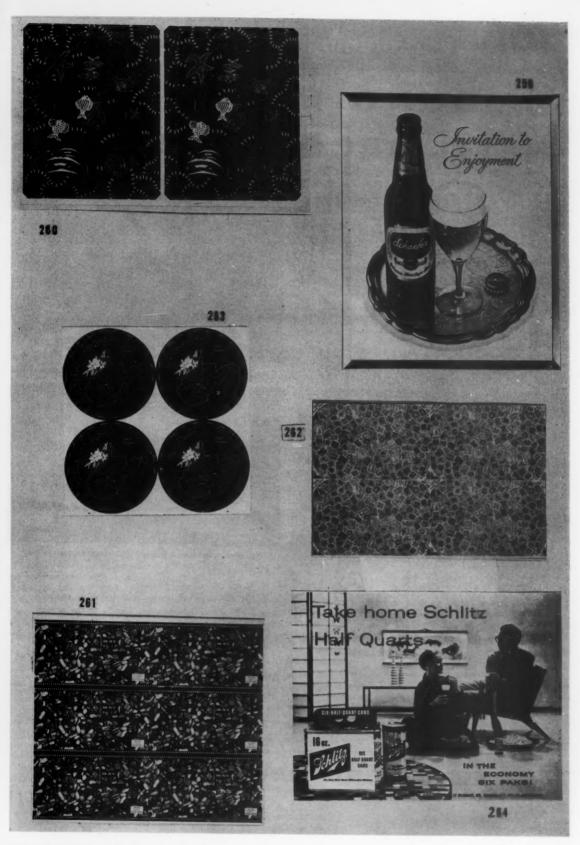
In one completely automatic operation the McCain Signature Feeder, the Christensen Gang Stitcher, and the McCain Trimmer will produce finished books in sizes up to 12x18" and up to ½" thick. And the machine can be furnished to feed signatures with or without gripper lap.

Here is the bindery combination that contains all of the factors which result in consistently high output. High productive speeds, positive control during feeding and stitching, exact accuracy

in trimming, unmatched dependability ... all combine to assure low maintenance, high production performance.

Contact your nearest Dexter representative for an in-plant demonstration, or for complete details on McCain Feeders or Trimmers.





MODERN LITHOGRAPHY, April, 1957

YOUNG BROTHERS METAL DECORATING OVEN

it's engineered to meet individual production requirements for SPEED, QUALITY, **ECONOMY**



Battery of large, high speed D. E. F. Metal Decorating Ovens



D. I. F. Metal Decorating Oven with zone control and recuperative cooling



High speed, combination D. E. F. and D. I. F. Metal Decorating Oven

A metal decorating oven is a highly mechanized production unit in a specialized field — and it will only perform at maximum efficiency in your plant if it has been engineered and built by men well versed in every phase of oven engineering.

In Young Brothers Metal Decorating Ovens you get the experienced engineering and precision operation which are vital in producing high speed, high quality metal decorating. Young Brothers "knowhow", based on 60 years of building individually designed ovens for all baking and drying processes, combined with a thorough knowledge of the Metal Decorating Industry is your assurance of better finished products at lower cost.

A wide variety of basic sizes and types of Young Brothers Metal Decorating Ovens are available to meet your specific requirements. Investigate what their advantages can mean to you — details are available without obligation. Write today!

YOUNG BROTHERS COMPANY

1839 COLUMBUS ROAD

CLEVELAND 13. OHIO



Canco Production Up

Production of metal cans rose to a record 41.8 billion units at American Company last year, the company reported last month.

This was substantially higher than previous estimates and represents a 1956 industry-wide production 6.7 percent greater than that of 1955, Canco said. Present indications are that 1957 production of metal cans will better the volume reached last year, because industry production of metal cans has set new peaks in each of the past five years.

Significant gains were established during 1956 in the use of cans for pet foods, meats, fruits and vegetables, beer and coffee, Canco reported.

Containers for these products made the following percentage gains in volume in 1956 over the previous year: pet foods, 15.7 percent; meats, 12.5 percent; fruits and vegetables, 19 percent; beer, 6 percent; and coffee, 5.3 percent.

NMDA Contributes

A contribution of \$1,000 to the Wadewitz Memorial Fund of the Lithographic Technical Foundation has been made by the National Metal Decorators Association. The contribution was announced at the annual meeting of LTF in New York recently, by Earl E. Gray, Caspers Tin Plate Co., Chicago, a past president of NMDA, who reported the action was taken at a recent board meeting of the metal lithographer's association. Box with Technical Section...

This material was excerpted from a report made by a representative of the Printing, Packaging & Allied Trades Research Association (PATRA). It is presented here to give readers some idea of the type and extent of graphic arts research being performed in England.

Joseph Johnston Dies

Joseph Johnston, a long-time employe of Continental Can Co.'s Paterson, N. J. branch, died Feb. 13 at the age of 65. His home was in West New York, N. J. He had been employed in the lithography and platemaking departments in the plant for most of his 51½ years with the company.

Before his retirement last November, he was working in Plant 67, a division known as Eastern Master Plate. The plant prepares offset plates for all Continental Can branches.

Pavne Celebrates 25th

Ernest Payne Corp., which sells rebuilt offset and letterpress equipment, this year is marking its 25th anniversary, according to an announcement from the company. Founded in 1932 in Centre St., New York, it has expanded and made successive moves to Lafayette and Beekman Sts., where the firm now has 60,000 sq. ft. of floor space.

LETTERS

(Continued from Page 45)

I have been reading your publication with much interest for the past five years, and have always found it most helpful.

R. W. Chester, Houston, Tex.

According to a survey made by ML last year, approximately 90 per cent of Litho shops have platemaking facilities. Several technical men in the litho field have advised us that a very low percentage (perhaps one or two percent) use the diazo proofing method. They added that, while its cost would be only a couple of dollars as compared with perhaps \$150-175 for the conventional method, the results are nowhere near as satisfactory.—Editor.

Photo Studio List

Dear Sir:

57

Being one of the biggest lithographers in Holland we very much should like to contact in the United States some studios making color shots (Kodachromes, etc.) of models to be used in the display industry—selling cigarets, foodstuffs, candy, cosmetics, drinks, etc.

N. V. Smeets & Schippers
Amsterdam, The Netherlands.

A list of some studios in the New York area has been sent.—Editor.

Newspapers by Offset

Dear Sir:

If you have any lists of weekly offset newspapers I would appreciate having a copy.

Lester C. King

A list compiled several years ago has been sent. Since that time, doubtless, many more have been added. See the February ML for a feature article on an offset daily.—Editor.

Short Run Three-Color

Dear Sir:

As a new subscriber to your fine magazine, I was particularly interested in your editorial in the January issue on small presses and short run offset printing.

We are engaged in just such a business—short run color printing and separations for the trade. I am enclosing some three-color short run prints that I feel you might be interested in seeing. These prints were run on a Davidson press. In fact, the masking, separations (indirect method), stripping, plates and press run were all done by one man, who, until a year ago, had never seen a halftone screen or a press of any kind.

After having received only two copies of Modern Lithography, we feel that it will

be a great asset to us and are very thankful for its contents.

Frank J. Fitch
Frank J. Fitch Assoc.
Norwalk, Conn.

The examples sent to ML are very fine specimens of three-color offset, representing, we feel, a rapidly growing use of this process in all parts of the country. Mr. Fitch and other readers no doubt will be interested in John Lupo's five-part series on Three Color Direct Separation, second part of which appears in this issue.— Editor.

Seeks Job in Litho

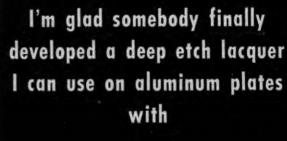
Dear Sir:

May I take this opportunity to seek your help in finding a job in litho, preferably in layout, artwork or copy preparation. I have been employed as a draftsman for 12 years, doing detail parts and assemblies from sketches, and lettering and ink illustration work.

I am 34 and handicapped because of my deafness and inability to speak well. I would appreciate it very much if you could give me some advice.

> Arduino Facchin, 370 West Ave., Norwalk, Conn.

Is there a litho shop that can make use of Mr. Facchin's talents? If so, please contact him directly.—*Editor*.



NO COPPERIZING

Frankly, I always found copperizing a pain in the neck. Now, the Knox Soap people have come up with a plastic lacquer made to order for guys like me. The way they put it is, "the image is virtually indestructible". All I know is I haven't been able to blind a deep etch plate yet made with Little Benjy plastic lacquer. And I've tried.



Made in two types (for surface and deep etch plates) these revolutionary new formulas for lacquers exhibit unusually high bonding strengths. Ten to twenty times tougher than vinyls, Little Benjy produces a film of high flexibility, with a tremendous affinity for ink, and at the same time, an extremely high repellence to gum and water. These features, together with its self-leveling, smooth spreading ease of application make Little Benjy the lacquer that the industry has been searching for.

SEND FOR FREE FOLDER SHOWING ACTUAL TEST RUNS OR SEE YOUR LOCAL DISTRIBUTOR



KNOX SOAP COMPANY 3300-22 WEST CERMAK ROAD CHICAGO 23, ILLINOIS PLASTIC SURFACE LACQUER

PLASTIC DEEP ETCH LACQUER

PLASTIC DEEP ETCH LACQUER FOR PLATES 54" OR OVER

KNOX-OUT RINSE

KNOCK-DOWN AND DRAG-OUT

LITTLE BENJY 1 STEP WASH-UP SOLVENT

LITTLE BENJY CORRECTION FLUID

TECHNICAL SECTION



Litho Research at PATRA

Screen Negatives, Tone Reproduction

WORK has continued on the development of a contact screen capable of giving improved tone rendering in offset lithography. Following the successful production of prototypes about 6 x 5" in the laboratory, attempts are being made to produce larger screens for demonstration purposes. The main trouble experienced -caused by the machine on which the screens were made-has been the appearance of periodic errors in the rulings, which produce objectionable effects in areas of even tone. A new type of machine, which should show no periodic errors at all, now is under construction in the I.G.T. laboratories in Amsterdam (the Dutch counterpart of PATRA); it is hoped that this machine will enable screens to be made showing no appreciable errors or defects.

A new type of neutral contact screen has been tested recently and found to approximate the type of screen which PATRA and I.G.T. are trying to develop. It is stated that these screens are now available commercially and further details are being sought.

In order to assess the quality of screens, attempts are being made to construct a microdensitometer suitable for measuring the density vibrations across individual halftone dots. This material was excerpted from a report made by a representative of the Printing, Packaging & Allied Trades Research Association (PATRA). It is presented here to give readers some idea of the type and extent of graphic arts research being performed in England.

Several commercial microdensitometers have been tested but none so far appears satisfactory.

There now appears to be a reasonable prospect of using the Vickers microscope for this purpose, the preliminary trials having been encouraging, and the necessary additions to the microscope are being made in the workshop. If successful, the device will have applications in the examination of screen negatives and halftone prints.

Desensitization of Plates

Work on desensitizers has not been continued this year because it is considered that for present purposes sufficient light has been thrown on the essential features required of a good "desensitizer." This work and its implications were the subject of papers contributed to the International Conference of Printing Research Institutes in Holland in May, 1955.

A practical outcome of this work

has been the development of a dampening solution containing sodium carboxymethyl cellulose and sodium hexametaphosphate, which it is believed will minimize scumming without introducing side effects which might lead to other lithographic troubles. Works trials are proceeding and it is intended to publish the results when they are completed.

Plate Etches

In addition to the work on desensitization by dampening solutions, a study has been started on the effect of plate etches in preventing scum. A suitable technique has been developed for assessing the relative efficiency of various plate etches in this respect and a range of etches examined. There is a difference between pre-etches (i. e., etches used before the application of the light-sensitive coating) and post-etches (those applied after the preparation of the image on the plate). With dichromated gum coatings on aluminum deep-etched plates, pre-etching gives the better protection, whereas with an albumen image on aluminum, post-etching is to be preferred.

Future work will include corrosion tests on plates etched in various ways and it is hoped to extend the work to zinc plates.

Emulsification, Transfer
The effect of dampening water can,

under certain conditions, have a serious effect on ink transfer, and this is concerned not only with emulsification of the water in the ink but also with the wetting of inked surfaces by the water. It is felt that before further progress is possible a fundamental study must be made of the wetting of ink films by aqueous media under static and dynamic conditions. Roller apparatus has been re-designed and the variation of wettability with speed of movement of the surface has been established for a few simple and well-defined surfaces. The viscosity of the wetting liquid is shown to play a part.

Rotting of Rollers

PATRA has been consulted on several occasions on the subject of the premature rotting of dampening rollers. It has been shown that litho press dampening rollers break down due to the action of bacteria and fungi: These fungi have been isolated and identified. A number of fungicides have been considered and two have been used in experiments with roller coverings: One was satisfactory and has been recommended for use. A report has been prepared and steps taken to make improved roller coverings available.

Similar work on the preservation of fountain solutions has begun.

Printing Inks

Work on the absorption of ink by paper has continued. Our reports have stressed the importance of this work in connection with the drving of printing inks, but it is becoming clear that certain aspects of the work are relevant to wider problems concerning the printability of paper. Such problems as lack of gloss of prints, mottle, set-off in the stack or on second impression, print-through and strike-through, and printability in general all are controlled by the interaction of paper and ink at the moment of impression and by what happens to the ink after impression. Work to date has provided considerable knowledge of penetration and has helped in understanding practical problems that arise.

Experimental work during the past

year has been governed by the need to design and build a printability apparatus working on the same general principles as the present one but which will satisfy the following points:

1. In practice the penetration is largely associated with the surface layers of paper only and thin films of ink are used. The instrument must, therefore, be capable of assessing the surface layers of the paper.

2. Work to date has shown that the penetration during impression is very dependent upon printing pressure. The instrument must, therefore, work at pressures of the order used in practice. The pressure distribution across the printing element should be as constant as possible.

3. It is necessary that the pressure should be built up very rapidly within about 1/25th of a second and that the time of dwell should also be of this order.

The instrument has been designed and will shortly be built. A phototype incorporating an oscilloscope, standard hydraulic equipment and an electro-hydraulic control valve loaned by other research establishments, was built to determine whether by using the electro-hydraulic principle proposed the pressure could be built up and released within the required time cycle.

TECHNICAL BRIEFS

These abstracts of important current articles, patents, and books are compiled as a service of the Lithographic Technical Foundation, Inc. They represent statements made by the authors and do not express the opinions of the abstractors or of the LTF.

Since some of the abstracts are from abstract journals, LTF cannot furnish photostats of all of the original articles. If the title is marked with an asterik (*), LTF has no further information than that contained in the abstract itslef. Inquiries about these items should be sent direct to the source that is named. If you want copies of U. S. Patents, write direct to the Commissioner of Patents, Washington 25, D. C. Send twenty-five cents for each patent desided. Make checks or money orders payable to "Treasurer of the United States." British patents may be obtained for fortyfive cents from the Patent Office, 25 Southampton Buildings, London, W. C. 2, England, or as is the case with all foreign patents, they may be obtained as photoprints from the U. S. Patent Office, Washington 25. D. C.

If the title of the abstract is not marked with an asterisk (*), LTF can supply photostats of the original article. NOTE: When placing orders for such photostats, please give the COMPLETE description of article wanted-TITLE, AUTHOR, PUBLI-CATION, and PAGE NUMBERS. When articles appear in LTF's publication Research Progress as well as other publications, Research Progress will be sent. The charge for copies of Research Progress is thirty cents each to LTF members and one dollar to non-members plus three cents postage. The charge for photostats is sixty cents per page (check abstract for number of pages) plus three cents per page postage. Postage charge for orders from places other than Canada and the United States or its territories and possessions is ten cents per page of photostats or ten cents per copy of Research Progress. Orders from companies or individuals who are not members of LTF cannot be filled until payment is received. Orders with payment enclosed receive immediate attention.

LTF also has mimeographed lists of (1) "Periodicals Abstracted by the Research Department" and (2) "Books of Interest to Lithographers." These are available for twenty-five cents each in coin or U.S. stamps. All inquiries concerning these lists and photostats of original articles (not marked with an asterisk) should be addressed to: Lithographic Technical Foundation, Inc., Research Department, 1800 So. Prairie Ave., Chicago 16, Ill.

Planographic Printing Processes

FINISHES FOR THE BOTTLE CROWN INDUSTRY. Part I: Types of Finishes and Their Application. Part II: Application Controls and Testing Procedures. Louis F. Rogers. Organic Finishing 17, No. 11, November,

1956, pp. 12-18 (7 pages); No. 12, December, 1956, pp. 5-9 (5 pages). The application and finishing of crowns by Continental Can Co. points out information of value to lithographers. Some of the problems are excessive dusting and scratching which can (Continued on Page 119)



no matter how you look at it...



More and more Lithographers find that PERFECTION® Flat Gummed Paper can be used for Offset Printing without any difficulty. Perfectly square and cut true to size, good register is assured on every job. There is a grade and color to meet any requirement.

- √ GREATER SHEET STABILITY
- √ BETTER PRINTING SURFACE
- √ SMOOTH, UNIFORM GUMMING
- √ LIES FLAT, NO CURLING

"the quality gummed paper you can always depend on"!

PERFECTION
FLAT GUMMED PAPER

There is Nothing Finer!

120



ED PAPERS Perfection is made by

PAPER MANUFACTURERS CO.

PHILADELPHIA 15, PENNSYLVANIA

SALES REPRESENTATIVES

Atlanta, Chicago, Cleveland, Kansas City, New England, New York, Philadelphia, Los Angeles,

Complete list of distributors in Walden's "Paper Catalog."

EDITORIALS

(Continued from Page 47)

drawn of the accident situation in our industry.

At the Safety Congress last fall, Raymond Blattenberger, Public Printer, referred to the disparity in the two sets of figures. The Council's handful of reports come mainly from some of the largest printing firms, newspapers and publishing houses, which are able to conduct systematic accident prevention programs with a full time safety director. Mr. Blattenberger declared that 70 percent of the "terrific" accident toll takes place in the small shops and that these casualties are not reflected in the recorded national statistics. He also warned that "Printers cannot afford to be complaisant."

The Safety Council, we know, is doing the best it can with what it has to work with. But all this is more than a mater of available statistics. Instead of "just holding our own," the printing and publishing industry should be in No. 1 spot on the Council's relative standing list as the nation's safest industry, ML feels. This could happen if the printing and publishing section's 100 or so member firms put on a drive to enroll industry's 45,000 firms in the humanitarian project. That will come slowly, but Modern Lithography will be delighted to help, as it has in the past.—H.H.S.

Reprints on 3-Color

Readers interested in obtaining reprints of John Lupo's five-part series on 3-Color Direct Separation (Part II of which starts on page 64 in this issue) may reserve a copy by writing the editor at Box 31, Caldwell, N.J.

If there is sufficient interest, the reprints will be printed at the conclusion of the series in July. Price will be about 75¢ a copy, depending on press run. When the specifications call for economy and a quality appearance—MANIFEST BOND is first choice.

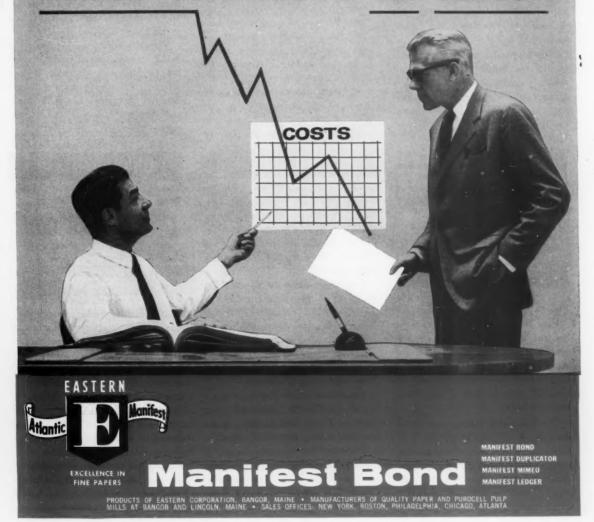
MANIFEST BOND has greater bulk for an economy paper—and the appearance of a more expensive sheet. It's moisture controlled for more accurate register, smoother performance and a better-looking job throughout the run.

Surface-sized for better "erasability", MANIFEST BOND comes in six business-attuned colors and a new whiter white.

Seeing is believing—prove to yourself how MANIFEST BOND can bring you better impressions for lower cost. Your Eastern Corporation Merchant will be happy to send you a sample packet on request.

wherever cost is considered first

Manifest Bond is 1st choice



LITHO CLUB NEWS

Cincinnati

I.P.I. Tour Planned

Members of the Cincinnati Litho Club and the Cincinnati Club of Printing House Craftsmen will conduct a joint meeting April 11 for an open house and inspection tours through the new plant of the International Printing Ink division of Interchemical Corp. in that city. Other program features will include refreshments, a buffet supper and screening of IPI's new film, "This Is Color."

Approximately 80 members and guests attended an open Litho Club dinner meeting on March 12, when George Adams, central district manager for Lithoplate, Inc., discussed and demonstrated presensitized plates. He was assisted in the demonstrations by Earl Battinger, technical representative in Cincinnati for Lithoplate, Inc.

Two new club members are Morris Runck, Standard Publishing Foundation, and Paul Granger, Metropolitan Printing Co., Inc.

Houston

Federal Laws Explained

Lane Burtram, director of the Houston office of the U.S. Secret Service, was guest speaker at the March meeting of Houston Litho Club. "You Can Picture Yourself in Trouble" was the title of Mr. Burtram's address.

The U.S. codes dealing with reproduction of obligations of the U.S. Government were the basis of his discussion. He pointed out that the laws prohibit reproductions "in the likeness of" and "or any part thereof"; which means that the photographing

or printing of any design which is in the likeness of any portion of an obligation or security of the U.S. is unlawful.

Washington

Special Program Honors Heideke

A surprise program honoring Paul Heideke, one of the founders of the Washington Club as well as the National Association of Photo-Lithographers, was held March 26 in the Continental Hotel.

Mr. Heideke recently retired after many years in the litho industry. A large attendance, including special guests, hailed Mr. Heideke as the "dean of lithographers" in the Washington area. He was presented with an honorary membership by the board of governors and a Senefelder pin. (See editorial on Mr. Heideke, page 47.)

Special guests scheduled to attend the meeting included Al Rossotti, Rossotti Lithograph Co.; Harvey Glover, Sweeney Lithograph Co.; Harry Brinkman, Cincinnati Lithograph Co., Walter Soderstrom, executive vice president of the NAPL; and William Stevens, Miehle Printing Press and Mfg. Co.

Entertainment at the meeting was provided by the "Precisionists," a singing group consisting of 24 men from the Washington chapter of the Society for the Preservation and Encouragement of Barbershop Quartet Singing in America, Incorporated. They performed in costume.

Attendance at the February meeting, at which O. C. Holland, of Interchemical Corp., was speaker, broke the club record, with 206 present.

Scheduled for the near future is the annual oyster roast, to be held again at Moose Lodge, College Park. Charles McFadden is in charge of arrangements.

Cleveland

Eastman Presents Program

At the February meeting of the Cleveland Litho Club, the program was sponsored by Eastman Kodak Co. An illustrated talk on the "Short Run Three-Color Process was presented and followed by a short discussion on the latest developments in the lithographic industry.

Prior to the technical portion of the meeting, Joseph Seifert gave a fine showing of slides taken at the club's Christmas stag party and at the Litho-Craftsmen Club Christmas dinner dance.

New members recently admitted to the club are Glenn Walrath, Roberts & Porter, Inc.; Walter Finch and Stanley Miciak, Brewer-Chilcote Co.; and Thurman Cobb, Jackman Lithograph Co.

The club will be represented at the NALC convention in Chicago, May 2-4, by Milton E. Cornman, council member; Andrew Balika and Russell Waddell, delegates; and John Hoehn and Anthony Lanza, alternate delegates.

Chicago

Program on Dampeners

The Chicago Litho Club's meeting March 28 at Toffenetti's Restaurant centered around the theme "Hold Your Water," with advocates of clean dampeners and dirty dampeners as guest speakers.

Byron Davis, of Ideal Roller Co., explained his company's "Plastadamp" ink repellent parchment paper system which permits printing with a clean dampener. Following him, Norman Mack, former Chicago club member, now technical director of Van Son Holland Ink Corp. of America, told about his diametrically opposed "Dis-Cover" disposable dampener which does the work regardless of its dirty condition.

For good measure, James Martin, assistant director of the Chicago Lithographic Institute, spoke briefly on the dampening system employed on the Miehle "17" Lithoprint press and the A. B. Dick Co.'s "effuser" which was developed for litho units of the Armed Forces. A number of manufacturers and suppliers of dampeners, and their representatives, were special guests at the meeting.

Following introduction in February of a new program feature, a second informal "bull session" was arranged for the cocktail hour, with free discussion by all present of the subject of plate troubles.

Mr. Martin, chairman of the club's educational committee, announced that the April educational program will offer a talk on the Dayco fountain separator by Raymond Richter of that company. Because 80 percent of the success of the split fountain is said to depend on layout, the "bull session" that night will deal with proper layout for split fountain operation.

The Chicago Club's 10th annual bowling session with the Milwaukee Club was held March 23 at the Playdium bowling lanes in Chicago, too late for inclusion of results in this issue.

Another event on which the entertainment committee has been working is the annual Ladies Night dance to be held at the Palmer House, May 4, as the final social feature of the NALC week-end convention there. Table reservations allotted to Chicagoans had nearly all been taken by mid-March, Jim Ludford, club president reports.

New York

Introduce New Service

A new service for members of the New York Litho Club, a litho clinical committee, was introduced at the February meeting by James Wilkinson, lithographic consultant, who is chairman of the committee. The new educational feature has a twofold purpose, Mr. Wilkinson said. First is the private aspect, where members can submit specific problems which will be answered by the committee privately. Then there will be the public discussion, which will result from questions submitted from the mem-

bership to be answered at the monthly meetings.

Other committee chairmen who elaborated on the work of their committees included Peter Rice, educational; Art Tarling, entertainment; and Lou Happ, dinner. Table name cards for officers, members of the board of directors and guest speakers made their initial appearance.

Guest speaker for the evening was Harold H. Newman, attorney and certified public accountant, who discussed "Timely Comments on Your Personal Income Taxes."

Dallas

ATF Chief Demonstrated

Dallas Litho Club met March 12 in the auditorium of the Texas and Pacific Railroad where the ATF Chief 15 was demonstrated by Thomas Bransford, district manager of American Type Founders. Warren J. Shurtleff, a member of the sales staff of ATF, assisted in the demonstration. Approximately 150 members and guests were shown the various phases of operation of ATF's newest press.

Baltimore

Boram Elected President

Thomas A. Boram has been elected president of the Baltimore Litho Club, with Joseph W. Peroutka named vice president. Mr. Boram had served two terms as vice president of the club.

Other officers are Harold E. Hackman, secretary, and Maurice Levie, treasurer.

Tulsa

Locke Discusses Advertising

Advertising preparation was the topic discussed by Paul Locke at the March 14 meeting of Tulsa Litho Club. A veteran of 20 years in the advertising business, Mr. Locke formed Paul Locke Advertising, Inc., in 1948, with his wife as partner.

He mentioned some of the do's and

Litho Club Guide

BALTIMORE

BUFFALO

Norwood A. Heselbach, Secy. 720 East Pratt St., Baltimore 2, Md. BOSTON

Thomas J. Cain, Secy. Hub Offset Co. 175 Purchase St., Boston 10

Vic Reisch, Secy.
33 Eiseman Ave., Kenmore 17, N. Y.

CANTON, Ohio Robert G. Sheppan 1510 Meadow Park, N.W. Canton 9, O.

CHICAGO
Emil F. Winter, sec.
Sleepeck Offset Corp.
1301 W. Blackhawk
Oak Park, Ill.

CINCINNATI
Peter Schannes, Secy.
Mail-Way Advertising Co.
229 East Sixth St.
Cincinnati 2, Ohio

CLEVELAND
Russell B. Waddell
5308 Blanche Ave., Cleveland, O.
CONNECTICUT VALLEY

CONNECTICUT VALLEY
Thomas Murice
521 So. Main St.
West Hartford, Conn.

DALLAS
Lee Phenix
1802 Akard St., Dallas, Tex.
DAYTON

Richard Clark, Secy. 740 Vine St., Piqua, O. DETROIT

John Murphy, Secy. 13100 Santa Rosa, Detroit HOUSTON

Chloe Lee Mallet 2104 Wichita, Houston 4, Tex. LOS ANGELES Ernest A. Szabo 1323½ W. 93rd St.,

Los Angeles 44, Cul.
MILWAUKEE
Allan N. Williams, Secy.
4463 N. Morris Blvd., Milwaukee 11,

NEW YORK Lou Happ Snyder & Black 200 William St., N.Y.C.

ONTARIO
The Secretary, Ontario Litho Club
c/o The Canadian Lithographers
Ass'n., Inc.
4 Wellington St., E., Toronto, Ont.

PHILADELPHIA
Joseph Winterburg, Secy.
622 Race Street, Philadelphia 6
Meets 4th Monday
OUEBEC

John Martin, Secy.
Gazette Printing Co., Ltd.
1000 St. Antoine St., Montreal, Canada
ROCHESTER

Roy Bippes, Secy. 87 Pleasant Ave., Rochester 22, N. Y. ST. LOUIS

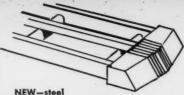
Eugene J. Hanson, Jr., Secy. 4440 Bessie Ave., St. Louis 15, Mo. TWIN CITY Marvin Haenze, Secretary

Marvin Haenze, Secretary 1405 Chicago Ave., Minneapolis 4, Minn. WASHINGTON H. Thos. Driver, Secy.

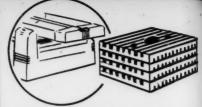
H. Thos. Driver, Secy.
PO Box 952, Benj. Franklin Sta.
Washington, D. C.
NAT'L ASS'N OF LITHO CLUBS
Eugene J. Hanson, Jr., executive sec.
4440 Bessie Ave., St. Louis 15, Mo.



NEW—precision machined in jigs and fixtures, no sheet metal or fabrications. One piece cast-metal members.



NEW—steel
welded track, one piece with center
guide and cross supports, precision
machined and planed.

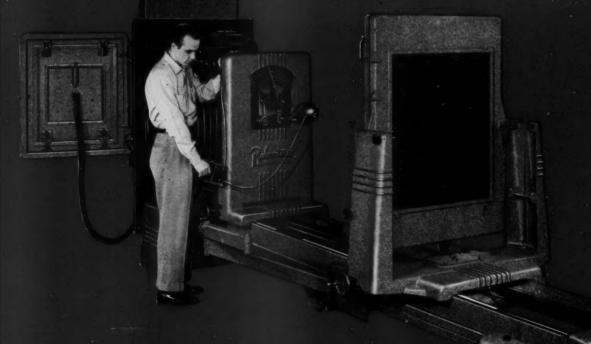


NEW—floating rubber suspension to effectively dampen vibration.

ALL NEW-ALL METAL

ROBERTSON

480

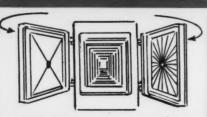


MIDDLEWEIGHT 24" AND 31" CAMERA MODERN SUCCESSOR TO THE "RELIABLE" (CD)

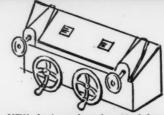
Now, for the first time, Robertson makes available an all-metal camera in the same price range as wood cameras. The "480" is a middleweight camera designed for requirements less exacting than those for Robertson's Comet and Tri-Color cameras. Write your local dealer or direct to Robertson for details and prices

ROBERTSON PHOTO-MECHANIX, INC. - 7440 LAWRENCE AVE., CHICAGO 31, ILLINOIS

Robertson



NEW-swinging doors for ground glass and film holder.



NEW-horizontal and vertical lensboard control from darkroom.



NEW-off-the-floor lamp carriers coordinate lamp and copyboard movement. don'ts of advertising preparation and told how various layouts and designs can influence the reader.

For the April meeting, a visit to the Oklahoma A. and M. Technical Training School is planned. A bus will be chartered and dinner will be served in the college cafeteria.

Canton

C. B. Harris Is Guest Speaker

At the February meeting of Canton Litho Club, Carl B. Harris, manager of the chemical division of Sinclair & Valentine Co., spoke on "Chemistry and Lithography." Following his talk, a question and answer period was conducted.

New members of the club include: Charles R. Barker, General Paper Co.; L. W. Haines, Haines and Co.; R. Bruce Markham, United Cooperatives; Virgil B. Stoudt, Saffel-Hivley Printing; Edger Rilinger and Clayton Betz, Holsing Lithograph Co.; Cam Charleston and Elvin Wilson, Review Publishing Co.; and John Tomassetti and Carey Webb, Amiet Printing Co.

Twin City

Progress in Offset Papers

on

Coated and uncoated offset papers, and the efforts that are being made at the paper mills to improve them, was the topic discussed by William H. Bureau at the March 7 meeting. Mr. Bureau is manager of Butler Paper Corp.'s research department. He also mentioned the various pick tests applicable to offset papers.

Mr. Bureau drew on his experience with such groups as Technical Association of Pulp and Paper Industry, TAGA and LTF for much of his information.

Preliminary plans are being made by the club for a trip in June to the Nekoosa-Edwards Paper Mills. President Herbert Werner called for a big attendance for the trip.

Philadelphia

Progress of Litho Presses

Representatives of Harris-Seybold Co. traced 50 years of progress in lithographing presses at the March 25 meeting in the Poor Richard Club. Howard Harcke, Graphic Arts, Inc., announced that plans are nearing completion for the TV Forum, May 10.11

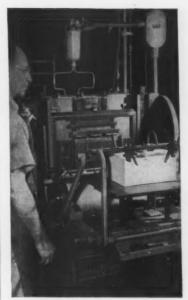
At the annual quiz night meeting in February, seven local experts handled a variety of questions put to them by moderator Russell Johnson, DuPont Printing Division, vice president of the club.

Serving on the panel were the following: CAMERA: Robert Fournier, Edward Stern & Co.; PLATES: Joseph Mazzaferri, Colorcraft Litho Plate Co.; PRESS: William Ferrigno, But-

(Continued on Page 141)



Principals at "Lithoplate Night" of Twin City Litho Club are, l. to r., Harold Smith, program director; Herbert Werner, president; Cal Harman, sales manager of Lithoplate, Inc.; Leonard Holzinger, secretary; and C. J. Goebel, treasurer.



Compare Hamilton Bond

. . . because your work is as good as your bond

Hamilton Bond invites comparisons. Compare its white—a beautiful white—bright, sharp and clear. Here's a perfect background for printed, typed and handwritten impressions. Compare its formation—clear and perfect—a formation which insures a level surface for best press performance. Check its other top bond features—genuine watermark, distinctive colors (10 of them), strength and endurance, pre-conditioning, moisture-proof wrapping.

Any way you look at it, your work is as good as your bond. And Hamilton Bond brings out the best in your work!

Hamilton Papers



HAMILTON PAPER COMPANY

Miguon, Pa.

Mills at Miquon, Pa., and Plainwell, Mich. Offices in New York, Chicago and Los Angeles

NEWS about the TRADE

Local 1, ALA, to Celebrate

The 75th anniversary of the Amalgamated Lithographers of America, will be celebrated in New York by Local 1 with a special banquet at the Waldorf-Astoria April 27. Mayor Robert Wagner of New York City will be an honored guest at the 75th anniversary banquet, together with other top industry, government and labor leaders. The mayor will declare the week of April 27 "Lithographic Week," in honor of the 75-year history of Local 1 and the Amalgamated. The Waldorf banquet will be followed one week later by an anniversary ball and entertainment for Local 1 members at New York's Manhattan Center, according to Edward Swayduck, president of Local 1.

Sun Chemical Elects Hoover

M. J. Hoover, associated with Sun Chemical Corp., New York, since 1936, recently was elected as a vice president of the firm. Mr. Hoover, who has held various executive positions, most recently was sales director for the corporation and also headed the firm's paints, construction and maintenance materials divisions.

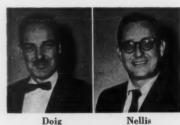
Charles Pressman Honored

Charles Pressman, co-founder of the Pearl-Pressman Liberty Printing and Lithographing Co., Philadelphia, recently celebrated his 25th year in the graphic arts industry. Mr. Pressman was honored at a dinner at Green Valley Country Club where he received a citation from the Chamber of Commerce of Greater Philadelphia.

Mr. Pressman started his career with the late Manuel A. Pearl in 1906 when the two men combined forces and \$60 to buy a hand-fed, foot powered 7 x 11" press. In 1953 the company and Liberty Printing and Lithographing Co. merged and moved to the present site at 2000 N. 2nd St.

Niagara Litho Names Four

At a recent meeting of the board of directors of Niagara Lithograph Co., Buffalo, N. Y., three new members were elected to the board. They







Audette

are Herman G. Fisher, president and founder of Fisher Price Toys, Inc.; James Doig, art director of the firm's Chicago office and a vice president of the company; and Louis G. Audette, vice president and manager of Niagara's New York office. Mr. Audette, who has been with the firm since 1941, is a director of Coca-Cola Bottling Plants, Inc. and Enrichment Materials, Inc.

Frank P. Nellis, vice president and director of the Chicago office, was appointed general sales manager. He has been with Niagara since 1939.

Record Budget Granted For LTF

A 1957 budget of approximately \$400,000 highest in the foundation's history, was given approval recently at the annual meeting of the Lithographic Technical Foundation in New York. In addition, the foundation will be faced with accumulating sufficient funds for purchasing its research building early next year. Ways and means of acquiring the needed money were discussed.

A review of the annual financial statements for 1956 showed a balanced budget with income and expense totaling approximately \$325,-000. For a complete report of the meeting, see ML, March, p. 86.

Wetzel Elects Norder

Election of Harold E. Norder, sales manager of Wetzel Brothers, Milwaukee creative printers and lithographers, to the newly created post of vice president in charge of sales, by the firm's directors, was announced last month by Arthur A. Wetzel, president.

Mr. Norder, who joined the company 10 years ago in the production department, later was transferred into sales and was named sales manager two years ago.

Rust Craft Officers Retire

Donald E. Rust, co-founder and chairman of the board of Rust Craft Greeting Card Co., Dedham, Mass., recently retired. He is the former president of United Printers and Publishers. Mr. Rust spent more than 50 years in the greeting card business. At the same time, E. D. Chase, senior vice president, retired after 36 years' service.



With glass you're sure

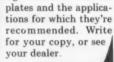
Four-color work, cards and forms for high-speed business machines—all pose problems of register. *Register* is 100% or it isn't at all.

Precision begins in the photographic materials you use for separations, half-tones—every step of the way. And in Kodak plates you have the ultimate—time tested. Tried and true.

That's why Kodak plates are the mainstays of so many high-volume shops which turn out four-color work on tight schedules.

And Kodak emulsions are all you could ask for in uniformity and reliability. Ortho and pan plates for every need perform in exactly the same way from box to box, this month or next. The emulsions are hard and adhere to the glass despite repeated wettings and dryings. Dots have optimum quality.

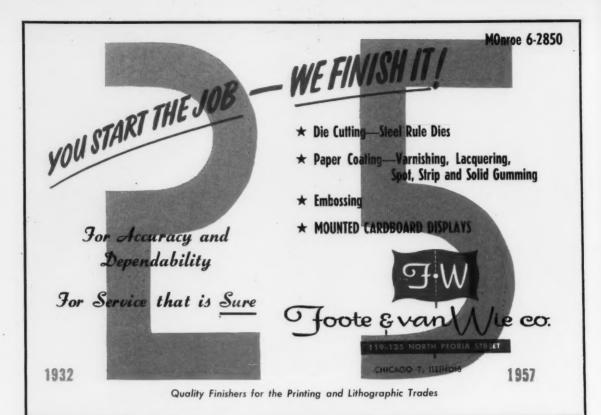
It is this all-over Kodak dependability that allows you to standardize your operations for real efficiency. The latest edition of "Kodak Materials for the Graphic Arts"-free for the asking-describes Kodak



Text for this advertisemen was set photographically.

Kodak

Graphic Reproduction Sales Division EASTMAN KODAK COMPANY Rochester 4, N. Y.



Gaetjens, Berger & Wirth, Inc. New York

William Recht President





HAVE YOU SEEN OUR NEW OFFSET FOLDER — 44 COLORS ON ONE SHEET — ASK FOR IT! William
Recht
Co.
New York

Graphic Arts Specialists



Manufacturers of fine printing inks for the graphic arts . . . over a century of manufacturing experience.

35 York St., Brooklyn 1, N. Y.

Tel.: ULster 8-4100 Tel.: COrtlandt 7-8395
440 Birchmont Road, Toronto 13, Ontario, Canada — Calzado Ixtapalapa 326-B, Mexico 8, D. F., Mexico

Featuring "REXON" rubber blankets and other litho supplies. New supply catalog is available.

50 Church St., New York 7, N. Y.

Christopher Heads U.P. & P.

At a recent meeting of the board of directors of United Printers and Publishers, Inc., Joliet, Ill., E. Wright-



E. W. Christopher

son Christopher, president of its Rust Craft Division, was elected president of U.P. & P. Mr. Christopher succeeds Donald E. Rust, co-founder of Rust Craft Greeting Cards, Dedham, Mass. Mr. Rust remains on the board of directors.

The new U.P. & P. president joined Rust Craft in 1933 as a salesman. In 1937 he was named sales manager, and in 1947, general manager. He was elected president of the Dedham firm in 1954.

Meyercord Elects Knopf

The Meyercord Co., Chicago, has announced election of Leonard A. Knopf to membership on the board of directors and his appointment as vice president in charge of new product development. Mr. Knopf is a son of Leonard H. Knopf, president of the company and has been associated with the firm for the past seven years. He spent some time looking after Mevercord interests in South America during the disturbance preceding the exile of dictator Juan Peron. Later he handled sales in Indiana and will now devote his full attention to market research.

N. Y. Printers Change Label

The Printing Industries Association of Western New York has adopted a new label, designed for members of the association to use on their shipments of products. The association describes the new label as "the mark of an association member and the badge of a competent and ethical printer."

The labels are being supplied without cost to members. The labels, imprinted with the printer's name and address, are provided at a small cost.

Sauls Appoints Dougherty

Frank Dougherty, former account executive, has been named production manger of Sauls Lithograph Co., Inc., Washington, D. C., it was announced last month by A. L. Tucker, president. Mr. Dougherty joined Sauls in 1955, as a specialist in color separation and multi-color printing.

Better Dots

A novel promotion piece was received by lithographers in the Southwest last month. A 17 x 22" sheet, offset in black, blue and red ink, announced the Seventh Annual Southwest Litho Clinic June 21-23 at the Adolphus Hotel, Dallas.

The announcement flier listed the general topic for the clinic as "How To Print a Better Dot," and the sheet was covered with lines like "a dot is a dot is a dot . . .," "there's no dot like a clean dot," "a good dot is hard to find," and similar atrocious puns.

The clinic is being sponsored once again by the Dallas and Houston Litho Clubs, with all demonstrations on closed-circuit TV. Technical representatives from Harris-Seybold Co. and other suppliers will be on hand to assist in the demonstrations. Advance registration, until June 15, is \$13.50. After that date it will be \$16.00.

On the three-day program are a trade fair, clinic demonstrations, question and answer panels, and a banquet and dance on the concluding evening. Registration checks should be made out to Dallas Litho Club and mailed to Lee Phenix, 1802 Akard St., Dallas.

Hagedon Joins Harris

New branch manager for Harris-Seybold Co. in the Twin Cities area is James M. Hagedon. In addition to



J. M. Hagedon

Minneapolis and St. Paul, the Twin Cities branch covers Minnesota, North and South Dakota, eastern Montana, and most of northwestern Wisconsin. It is part of Harris-Seybold's western district, which has headquarters in Chicago.

Mr. Hagedon has been in the graphic arts for 20 years. He started as a newspaper compositor, became a composing room foreman, switched to the printing equipment field after World War II, and joined Harris-Seybold several years ago as a sales representative.

S&V Names 3 Managers

Sinclair and Valentine Co. announced last month the appointment of three new branch managers. Frank Stapleton is the new Tampa, Fla. manager, succeeding Jack Cummings who has taken over the Jacksonville branch manager position. Charles Cafazza now heads the St. Louis branch after three years service in that area.

Igoe Heads Inland

James T. Igoe, last month was elected president of Inland Lithograph Company, Chicago, advertising printers. Mr. Igoe started with the firm as a salesman in 1932 and in recent years has been executive vice president in charge of operations. B. E. Callahan, former president, has been elected chairman of the board.



neenah says,

to sell more letterhead jobs, let your prospects sell themselves

by reading "The Right Letterhead for You." (2nd series of course)



This new portfolio demonstrates to executives the business principles that make a letterhead right for a particular company.

Simply imprint your name on the front cover and give copies to likely prospects. The portfolio helps them reach a decision whether their present letterhead is adequate or not. Once their mind is opened, you step in to make the sale.

Get your free copies of "The Right Letterhead for You" from your paper distributor handling Neenah Fine Business Papers.



neenah paper company

A DIVISION OF KIMBERLY-CLARK CORPORATION neenah, wisconsin

Amer. Colortype Names Evans

Ray Evans, Jr. has been appointed vice president and general sales mangeneral sales man-ager of the Printing Division of American Colortype Co., it was announced last month by Melvin Unterman, executive vice president. Mr. Evans became associ-



Evans, Jr.

ated with Colortype in 1946, as a production coordinator, be-came production and publication manager and last August was named sales manager, Printing Division.

Rand McNally Gives Scholarships

Rand McNally & Co., Skokie, Ill., has announced the award of \$1,000 scholarships to four children of company employes. Two of the employes work in the company's Hammond, Ind., book manufacturing plant and the other two in the New York office. Five winners of last year's scholarships now are attending colleges and universities in the U.S. Winners are chosen by competitive examination with consideration of leadership activities, scholastic achievements and participation in extra-curricular affairs.

Litho Book Uses Overprinting

A new color reproduction technique will be unveiled April 8 with publication of a new juvenile book, Bible Dictionary for Boys and Girls. Written by Manuel and Odette Komroff, illustrated by Steele Savage, and published by The John C. Winston Company in Philadelphia, the book will be the first to be published with illustrations made by the photographic overprint process.

Photographic overprints were first described in Color by Overprinting, by Donald E. Cooke, a technical book on art preparation and printing established by Winston in 1955. (Described in an article by Mr. Cooke in ML, February, 1955, page 32) the process involves overlays in transparent colors with photographic images superimposed to provide overprints. Through its application, black and white drawings may be readily converted to multicolor.

In Bible Dictionary for Boys and Girls, black and white line drawings by Steele Savage are ideally suited to such conversion, since their crisp.

decorative lines provide brilliant patterns in color, according to the Winston Co. Only three colors have been used to produce seven, "black" lines being achieved by the solid overprint of all three inks. The illustrations show precise register of the finest lines or dots in a multiplicity of colors, Winston asserts.

The photographic overprint method was invented by Mr. Cooke.

The book is being off-set printed by the Polygraphic Company of America. Inc., New York. Photographic Overprint color separations were made by Peter Dant Studios in Ardmore, Pa.

Hoe Sets Business Records

A record new business total of \$21.5 million was announced by R. Hoe & Co., Inc. in its 1956 annual report. This was a 16 percent gain over the previous year, according to the company. Joseph L. Auer, president, stated that an order backlog of \$13.7 million formed the major part of the new business. He added that this was achieved despite an "abrupt shift away from defense business."

The report revealed that \$12.6 million, or 99 percent of the 1956 backlog represented printing presses. In 1955 press machinery represented \$8.4 million, or 76 percent, of an \$11 million total backlog. In 1954 press machinery represented \$5.8 million, or 55 percent, of a \$10.6 million total backlog.

Canco Names Schmalzriedt

American Can Co. has announced the appointment of William K. Schmalzriedt as manager of the firm's international division. Formerly manager of the tinplate division of Canco's general purchasing department, Mr. Schmalzriedt now succeeds Wagner Van Vlack, Jr., who has been appointed assistant to the president.

Downey Heads P.D.I. On Coast

Printing Developments, Inc. has named James Downey to the position of West Coast regional manager. He succeeds Karl Hoffman, who has been named production superintendent for Lithotype Process Co., San Francisco.

Loefgren New H-S Sales Manager

C. A. Loefgren has been appointed sales manager of Harris-Seybold Co., Cleveland, and Lloyd G. Butler has





Loefgren

Butler

been named assistant sales manager. Mr. Loefgren will be responsible for Harris-Seybold's sales-service organization in the U.S. and Canada. Formerly assistant general sales manager, he will be aided in his new post by Mr. Butler, formerly executive assistant to Harris-Seybold vice president Richard B. Tullis.

A veteran of more than 30 years of graphic arts equipment sales experience, Mr. Loefgren has been with Harris-Seybold since 1947. For several years he was manager of the company's Western district, its largest sales-service unit, with headquarters in Chicago, before being promoted and transferred to Cleveland in 1953. He is a member of the Printing House Craftsmen and the Printers Supplymen's Guild, belonging to both the Cleveland and Chicago clubs of each.

Mr. Butler has held a variety of field selling and sales executive posts in his eight years with Harris-Seybold. He is a member of the Printers Supplymen's Guild, Sales Executives' Club of Cleveland and the American Marketing Association.

Blackburn Elected V.P.

John Blackburn has been elected vice president of Lithotronics Corp., Linden, N.J., at a meeting of the firm's board of directors, it was announced late last month by Henry R. Long, president.

Mr. Blackburn formerly was associated with the Zarkin Machine Co. Prior to that, he was president of Local 1, Amalgamated Lithographers of America and also served as the International president of the union.

Mid-American Graphic Arts Trade Show Held In St. Louis

A PPROXIMATELY 200 different exhibitors, representing 23 exhibitors, were displayed at the Mid-America Graphic Arts Trade Show held in St. Louis, March 2-4. By noon of the second day of the show, more than 500 persons had registered. Visitors to the show represented shop foremen, craftsmen and management from the St. Louis area, Louisville, Indianapolis, Chicago, Memphis, and a special delegation from Mexico.

The show, sponsored by Eastman Kodak Stores, Inc., St. Louis, occupied 7,000 sq. ft. of floor space at the Coronado Hotel. Harry Schmidt of the Eastman Stores in St. Louis, who conceived the idea for the show, said attendance and interest were so gratifying that visitors from Chicago, Cincinnati and other cities were studying the show's format and plan similar shows in their cities.

A large crowd, including families of some lithographers, viewed a color

film, "Modern Photolithography," at the March 2 session.

Among the many exhibits, the demonstration of electronic flash lamps for various graphic arts applications drew particular interest. A plate, demonstrated by the American Speedlight Corp., exposed with Ascor Electronic Flash, was made for the audience.

The test made on Colitho plates was the first made anywhere, according to demonstrator Harry L. Parker. The total exposure time was 10 seconds—10 flashes, 1600 watt per second.

The electronic flash is utilized for color separation work, for making halftone positives, for making screened positives from separation negatives, and for copyboard illumination in making positive transparencies. The speed with which the electronic process operates seemed to stimulate most interest.

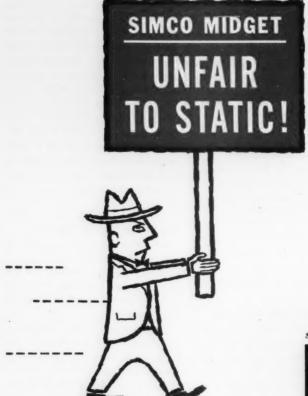
Another "first" at the show, which attracted considerable interest, was a dark room contact color masking reproducer demonstrated by Jos. Gelb Co. A self-contained color separation printer, it makes highlight mask and color corrected masks, and also fourcolor separations.

Rand-McNally Buys Idea

Andrew McNally III, president of Rand McNally & Company, Chicago printers and lithographers, announced recently that Joseph Zawada, a 52-year-old stamping machine operator in the company's Conkey Division at Hammond, had been awarded \$3,-226.50 for an idea he proved could work.

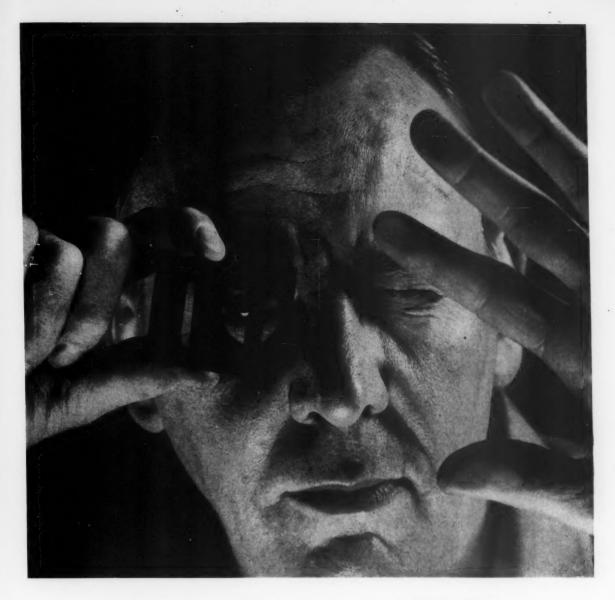
Mr. Zawada was awarded the money under the company's suggestion system, one of the most generous plans in the printing and publishing industry.

Mr. Zawada has been a Rand McNally employe for 28 years. He suggested a more efficient way to stamp book covers in the company's bookbinding factory in Hammond.



static eliminators for all graphic arts machinery

the SIMCO company 920 Walnut Street, Lansdale, Pa.



Search for quality . . . you'll find GEVAERT

Quality in lithography makes a material difference. And for years, Gevaert materials have been providing this difference for busy litho shops from coast to coast. Gevaert's fast Litholine Ortho has tremendous exposure and developing latitude, low fog in forcing. It produces exceptionally hard dots that are dense, sharp and easy for etchers to work with. Low, low halation. And shopmen like its toughness and resistance to abrasion.

THE GEVAERT COMPANY OF AMERICA, INC.



It's easy to maintain tight schedules and still turn out high-quality line and halftone work with:

O 81 LITHOLINE ORTHO—0.003" thick, thin base for line or screen positives or negatives

O 82 in regular base, same emulsion—0.006" thick

Sales Offices and Warehouses at

321 West 54th Street 150 No. Wacker Drive 6370 Santa Monica Blvd. 9109 Sovereign Row New York 19, N. Y. Chicago 6, Illinois Los Angeles 38, Calif. Dallas, Texas In Canada: Gevaert (Canada) Ltd., 345 Adelaide St., West Toronto 2-B, Ontario



what's in it for you!

The answer is — plenty! Chemco research has recently achieved a lithographic film advancement that is winning orders and re-orders from Photo Lithographers.

Powerlith film now gives its users maximum latitude in line work, without sacrifice of halftone quality. By this we mean, considerable variation in line exposure is possible without loss in density, or filling-in of fine lines.

Powerlith is available in a broad range of sheet sizes to meet every conceivable offset photographic requirement. But have you considered the economy of using roll film?

(If you make more than forty negatives a day,

Powerlith film in rolls, together with a Chemco Model F-1212 Roll Film Offset Camera

will make money for you in your gallery.)

Contact your local Chemco representative for details

contact your local Chemco representative for details

and samples of this new Powerlith Film.



PHOTOPRODUCTS COMPANY, INC. GLEN COVE, N. Y.

ATLANTA BOSTON CHICAGO DALLAS DETROIT NEW ORLEANS NEW YORK

Screen Process for Decals

Very few decals are produced in this country without using screen process printing, it is claimed by the Screen Process Printing Association, Int'l. In view of this the organization has created a new committee to develop a program for group action on mutual problems of benefit to members of SPPA who manufacture decals.

Chairman of this committee is T. C. Babcock of Chicago Decalcomania Co. Among possibilities being considered is an institutional advertising program to create interest in use of decals; development of a code of ethics and set of trade practices; closer cooperation of suppliers in developing new materials for the decal industry; standardization of specifications for various types of decals; a plan for collecting information on machinery used in the industry and development of operating financial ratio studies for members. SPPA has 900 members in 33 countries.

Schedule Printing Courses

Carnegie Institute of Technology recently announced that all phases of printing will be covered in six-week summer school courses from June 24-Aug. 3. Individual courses in planning, design, estimating, cost accounting, sales, and management will be offered as well as skill development courses in typography, machine composition, press work and photolithography. Advance applications may be filed with the Director of Summer Session, Carnegie Institute of Technology, Pittsburgh 13, Pa.

Consolidated Opens Workshop

Consolidated Lithographing Corp., Carle Place, L. I., has opened an additional display workshop at 13 West 28th St., New York. The expansion program has been planned to make room for the firm's increased creative activities in the sales promotion field. The workshop will be staffed by art directors and construction engineers. The new quarters will provide an additional customer service center, but sales headquarters will remain in Carle Place.

Murder in the Gutter

Reprinted, with permission, from Vol. 1, No. 2 of Case Paper Co.'s new external house organ "Printer's Home Companion." The folder, to be issued regularly by the New York company, will poke gentle fun at the graphic arts.

Bang! The bullet found its mark and Mat, the Linotype Operator, lay bleeding in the gutter, a hot slug in his ligature.

"Who tried to kill this guy?" cried the serif, arriving too late at the scene.

"I did," sneered Caledonia, thrusting her beautiful format him, "bodoni because he deserved it."

"Pretty dom casual, aren't you," said the serif. "Let's have the facts."

Caledonia flushed. "I font him talking to some other galley on the colophon. He was giving her the usual cheap line, promising her the world, the lousy pica. It was all the proof I wanted. 'I'm no dummy,' I told him, 'this is the finish.' 'Good,' he snarls, 'I never did like your type face—a real paste-up mess!'

"That registered. 'Cursive rat,' I said, 'gravure hat and beat it or I'll fill that bold face so full of lead they'll lay you out in the mortise.' 'Aw, go panel your papers,' he says. My tempera rose to the boiling point. 'Make ready to die, you pigment!' I screened and shot him full of white space."

Caledonia sighed. "And that." she concluded, "is stat."

"Shot him with everything but the kitchen zinc," said the serif, shaking his head. He laid a heavy hand on her shoulder. "Let's get rolling."

"Yeh, I guess it's the lock-up for me," said Caledonia mechanically. "Maybe the electro chair. But I duo-tone for what I've done. Now, I'm just another widow."

"Very retouching," said the copper as he lead her away.

Snyder & Black Plans Move

Snyder & Black, one of the oldest color lithographers and point of purchase display manufacturers, soon will move to Westchester County (Village of Elmsford), N. Y.

The 113-year-old firm (located for the past 50 years at 200 William Street, New York City) is building one of the most modern lithographic plants in the country, it announced last month. It will be air conditioned, humidity controlled and engineered to include the latest production methods. The plant site is adjacent the new Westchester County Thruway and close to the North White Plains railroad station.

These new facilities will enable Snyder & Black to offer a wider range of creative and merchandising services to manufacturers and agencies in the fields of color lithography, point of purchase displays and permanent merchandising units, according to the announcement.

New officers recently elected by the company are the following: Homer H. Johnson, chairman of the board; George F. Arata, president; Carl Georgi, executive vice president; Orris H. Stark, vice president and sales manager; George Kamps, vice president and production manager; Bernard L. Martin, secretary; Leroy A. Carlson, treasurer; Ted B. Arata, assistant vice president; and James Insinga, assistant treasurer.

Hansen Named by Recorder

Bernard A. Hansen has been named general manager and vice president of the Recorder Printing & Publishing Co., long established San Francisco letterpress printing and lithography firm. Mr. Hansen, who has been a member of the organization since 1927, succeeds Frank F. Kilsby, who is retiring because of ill health.

Bruno Discusses Offset

Michael H. Bruno, research manager of the Lithographic Technical Foundation, discussed "Why Offset?" at a dinner meeting of the Printing Industries Association of Western New York in Buffalo. Mr. Bruno discussed advancements in the lithoprocess made through research.

ONLY OXY-DRY GIVES YOU ALL THESE ADVANTAGES



GREATER PRESS SPEEDS

more impressions per hour

REDUCES REJECT SHEET WASTE

more deliverable sheets

PERMITS FULL PRESS LOADS

faster job handling time

USES LESS OFFSET POWDER

costs less to operate

FASTER SETTING & DRYING OF INK

less waiting time for next operation

ELIMINATES STATIC ELECTRICITY

"plumb-bob" jogging on press delivery

MUCH LESS SERVICE & MAINTENANCE

fill it...set it...forget it operation

000

ANY one of the above advantages make OXY-DRY superior to all other offset prevention methods. Combined, they give the printing plant that has OXY-DRY equipment, a tremendous competitive advantage that means more business, more profits and more satisfied customers.

If you want to increase the number of deliverable impressions per hour for every press in your plant, then you need OXY-DRY sprayers...write, wire or phone us today for more details. Installations now being made for all press sizes from 17x22 and larger.



OXY-DRY SPRAYER CORPORATION

NEW YORK CHICAGO SAN FRANCISCO 1134 West Montrose Ave., Dept. ML Chicago 13, Illinois

THE ONLY RIGHT PREVENTIVE FOR INK OFFSET

Zone___State

Buffalo Honors A.L.A.

Labor and industry joined in Buffalo last month to observe the 75th anniversary of the Amalgamated Lithographers of America, AFL-CIO.

At a meeting sponsored by Local 2, ALA, Roy P. Tyler, installation and service manager of the Harris-Seybold Co., Cleveland, told about 200 persons that the lithographic industry is "indebted to organizations" such as the lithographers union.

Despite myriad technical advances in the industry, he added, lithography "still is a craftsmen's industry and it will remain so."

The 33,000-member union had its formation, said Arthur W. Brown, Toronto, international vice president for the Canadian region, when 18 lithographers gathered in New York in 1882 to attempt to improve working conditions.

Kenneth A. Schaeffer, international representative and a former president of Local 2, said the ALA "can afford the luxury of not having to have a paid organizer. Our organization sells itself." George W. Luke, president of the 335-member local, presided.

Donnelley Earnings Set Record

Sales and earnings of R. R. Donnelley & Sons Co., Chicago, in 1956 were the highest in history. Gen. Chas. C. Haffner, Jr., chairman of the board and chief executive officer, stated in the annual report, released late in February. Net sales for the year ended Dec. 31, 1956 totaled \$109,681,000, compared with \$96,404,000 for 1955, he said. Net income after taxes amounted to \$7,581,000 or \$2.88 a share, against \$6,600,000 or \$2.51 a share in the previous year.

The outlook for the company in 1957 continues to be satisfactory, Gen. Haffner said, and, looking into the future, he added, "We expect that, with a healthy general economy, we will achieve additional satisfactory results from the planned additions to our facilities."

155

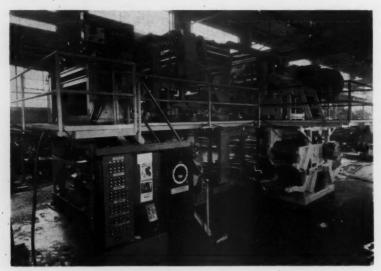
Capital expenditures during 1956 were \$6,648,000, including a new plant for telephone directory manufacture which was built and is now in operation at Willard, O., and an addition to office and manufacturing space at the Crawfordsville, Ind., plant, where total floor area was increased by approximately 100,000 sq. ft. During the year eleven additional presses were installed, including two high speed magazine presses and others for four-color work on national magazines. Three of the new presses were erected at Crawfordsville, where two other presses were transferred from Chicago.

A considerable expansion in roto-

gravure printing was indicated by Gen. Haffner, resulting from the company's recent arrangements to purchase the plant and equipment of the Crowell-Collier Pub. Co., at Springfield, O. No printing will be done there, he explained, and after equipment has been transferred elsewhere, the building is expected to be sold. This purchase, he said, will enable Donnelley's to increase its rotogravure production more rapidly and economically than would otherwise have been possible.



McCall Corporation Installs Levey Four-Color Press



New Levey four-color double-ender web offset press being installed at McCall Corporation's Dayton, O. plant prints a 47" circumference and will accommodate up to 40" maximum web.

McCall Corporation, Dayton, O., is adding a giant four-color double-ender web offset press which prints a 47" circumference. Built by Fred'k H. Levey Co., the press will accommodate up to a 40" maximum web, a total of more than 80" across the press. The new press will print four-colors both sides of a 40" web and is equipped with a Levey steam drum dryer 96" in diameter.

The folder on the press allows two different cut-offs. One is 1/3 of the press circumference, $15\,2/3$ ", with which the press will normally deliver three different 12-page signatures approximately $5\frac{1}{2}$ x $15\,2/3$ ". For production of this signature, a roll of only 33" is used.

To use the full width of the press with a wider roll, one of the ribbons is passed over a pre-former in order to produce a single gate leg fold. This full product then consists of three different 14-page signatures, and the gate-leg fold can be produced on any one of three ribbons.

Because the press has two preformers, it is possible to produce a double gate fold. The second cutoff is ¼ of the press circumference, or 11¾". In this size, the folder normally delivers four 8-page sections approximately $8\frac{5}{8} \times 11\frac{3}{4}$ ". These eights can be produced as a double gate fold, or, using a full web, can be produced as 10-page sections with partial single gate fold.

Folder changeover from one size to another is quick and easy, and the folder includes several exclusive features. The new press is fitted with a Cline automatic flying paster, and it is the first machine produced with Levey brush ductors as a complete factory installation.

Niagara Falls Printers Protest

Two Niagara Falls printing firms are planning to protest to city manager Charles B. Wright against the awarding of special city printing jobs to the G and G Printing Co., it was learned.

Albert J. Fose, president of Fose Printing Co. said that he will ask the manager to meet with printing industry spokesmen, who wish to express their objections to the contracts.

Elmore Wahl, president of Wahl Printing and Binding Co., Inc., said he was interested in making sure that all bidders understand the specifications on city printing and know just what the city wants.

MLA, Binders Discuss Problems

As the result of efforts initiated by the Bookbinders Guild to achieve a better understanding and solution of mutual production problems, the Guild and the Metropolitan Lithographers Association conducted a panel discussion, chairmaned by Eugene Rieder of the Guild, at a member meeting of the MLA. The results of this cooperative effort to smooth out production kinks between lithographers and binders have been summarized in a folder, Bindery Specifications for Litho Production, just published by the MLA employer group.

The panel group of the Bookbinders Guild summarized their instructions in the form of 14 specifications, and the MLA added explanatory comment from notes on the panel discussion. Pamphlet binding as well as edition binding is included. It is believed that this is the first time this type of litho production information for bindery work, including recommended B.M.I. bindery spoilage allowances, has become available in published form. Copies are available from the Metropolitan Lithographers Association, 33 West 42nd St., N. Y. 36, if request is accompanied by stamped self-addressed envelope. Copies can also be obtained from members of the Bookbinders Guild.

Crown Purchases Plant Site

Crown Zellerbach Corp., San Francisco, has purchased 30 acres of industrial property and optioned an additional 20 acres near the St. Louis airport for a projected multi-million dollar plant to make flexible packaging materials. The site was purchased for approximately \$120,000 from the Wabash Motor Transit Co. which also owns the adjacent optioned property.

The plant under consideration would be part of Crown Zellerbach's Western-Waxide Specialty Packaging Division which operates plants in St. Louis, Kansas City, San Leandro, Cal., Los Angeles and Portland. It would replace the present St. Louis plant which the Specialty Packaging Division is rapidly outgrowing



HOW white is Hi-White?

Is it white as the snow at Sun Valley?

Or a sail in the sun?

Or Mary's little lamb?

Actually, no figure of speech can define the whiteness of the extraordinary sheet of paper of which this is a sample.

Beckett Hi-White is a superwhite, super-quality offset paper with a roseate undertone that produces the remarkable effect of WHITENESS WITH WARMTH!

White areas look even whiter than white, black type looks blacker, colors appear to have greater depth, in all printed productions on Beckett Hi-White.

For further details, please turn the page.

Illustration, depicting a scene at Sun Valley, courtesy the Union Pacific Railroad.



Illustration courtesy Central Mutual Insurance Co.

tures white areas, be sure it is printed on Beckett Hi-White. The whiteness of this super-quality sheet, as you see here, is startling. A nearby Beckett distributor will be pleased to furnish sample sheets for

Facts for Production Managers

text and bond papers with the printability of the highest quality papers designed primarily for offset lithography. It is equally suitable for printing by any method - letterpress, offset, gravure.

Four standard basis weights are available - 70, 80, 100 and 120 lbs., in four popular sizes. 60 lb. is furnished on minimum making orders of 5,000 lbs.

In addition to Smooth Vellum, Beckett Hi-White is furnished in a variety of fancy finishes. Its companion cover stock is Hi-White Buckeye Cover.

Complete sample book on request to your nearby Beckett distributor.



THE BECKETT PAPER COMPANY

Makers of Good Paper in Hamilton, Ohio, Since 1848

This is BECKETT HI-WHITE, Smooth Vellum Finish, 80 lb.

TECHNICAL BRIEFS

(Continued from Page 96)

be minimized by correcting the size coatings, inside enamels, printing inks, finishing varnishes and waxes and lubricants. This article gives the effects of each of these steps on the manufacturing and final uses of the crowns.

TECHNICAL FACTS ABOUT SHORT-RUN 3-COLOR PRINTING. Bulletin for the Graphic Arts #7, 1956 (3 pages). The 3-Color Printing Process can be characterized by 4 main points: (1) Standardization; (2) Mechanical Register; (3) No handwork; (4) Specially selected inks. The procedure, equipment and materials used in the process are described. Examples of 3-color printing are included.

3-Color Process: Revolution in Color Printing. Joe H. Williams. Printing Monthly 7, No. 11, February, 1956, pp. 4, 5, 6 (3 pages). Short Run Color Corporation's experience with 3-color reproduction is described. Copy quality, color bars, dot sharpness and hand work are discussed.

Paper and Ink

NEW EXTENDER CLAYS FOR LITHO INKS. Carolyn E. Moore, Modern Lithography 24, No. 10, October, 1956, pp. 88, 89, 91, 92 (4 pages). This article discusses the addition of clays to printing inks to improve the quality of printing. A project to improve the surface characteristics of kaolin clays for use in lithographic inks has been undertaken by NPIRI under the sponsorship of Minerals and Chemicals Corporation of America. A method of rendering the clavs hydrophobic and testing these clays in practical ink systems was studied. Litho-inks using polar vehicles show that hydrophobic clays wet more easily, disperse more quickly and resist emulsification and breakdown by water. Occurrence of tinting gradually decreased with increased hydrophobicity of the extender pigment. Conclusions drawn are: (1) With hydrophobic clays ink is more uniform in composition and therefore performance is more predictable; (2) Inks formulated with coated clays change less in consistency and performance due to changes in humidity or the presence of water; (3) Inks containing hydrophobic clays showed marked resistance to piling, emulsification, and water breakdown.

INK Tells The Difference. Dr. Maurice Adler. Pacific Printer Publisher & Lithographer 95, No. 5, Nov., 1956, pp. 13, 14, 16 (3 pages). This is a very general article about printing inks. Included is a description of early inks and recent new inks and future work to be done.

NEW APPLICATIONS OF SYNTHETICS FOR THE METAL DECORATOR. Bruce W. Hubbard. The National Lithographer 63, No. 10, October, 1956, pp. 43, 45, 46 (3 pages). A brief history of the natural rubbers and synthetic rubbers used for rollers and blankets by the metal decorator is outlined. Properties of natural latex, thiokol, neoprene, nitrile rubber, leather, vulcanized oil, and plast-o-damp are described under attack by litho varnishes, solvents and other materials peculiar to the lithographic process. Special emphasis is placed on the properties and uses of plast-o-damp, a new dampener covering.

Lithography—General

INSIDE STORY OF LITHO RESEARCH. H. H. Slawson. *Modern Lithography* 24, No. 10, October 1956, pp. 67, 69, 70 (3 pages). A three page picture article showing the personnel, equipment, facilities, and activities at the LTF Laboratory. Photos from LTF's AV on the lab.

WILL IT BE STRIPPING OR PHOTOCOMPOSING? Bernard R. Halpern. Printing Equipment Engineer 86, No. 11, August, 1956, pp. 66, 67, 103, 104 (4 pages). The advantages and disadvantages of stripping vs. photocomposing are carefully analyzed. Such factors as initial investment, time, accuracy, operating costs, etc., are compared for each method.

OFFSET BLANKETS: MANUFACTURE, CARE AND USE. R. R. Lewis. The Graphic Arts Monthly 28, No. 11, November, 1956, pp. 66, 68, 70, 72 (4 pages). The problems of the past when natural rubbers were used are reviewed and the improved properties that blankets made of synthetic Buna N rubbers now have are noted. The manufacture of blankets is described briefly and the care that blankets in use should have is covered.

*Albumen Substitute and Synthetic Coating Solution for Photo-Litho Plates. Anon. *Indian Pr. Pap.*, Vol. 21, No. 4, April, 1956, pp. 28-9; *Printing Abstracts* 11, No. 8, August, 1956, p. 490. Formulae and brief notes on handling for casein, soya bean, dextrin and Baracoat coatings and comments on simple pH control are given.

Graphic Arts—General

ELECTRONIC HT AGE IS HERE. Printing Magazine 80, No. 11, November, 1956, pp. 62, 63, and 94 (3 pages). The dominance of graphic arts is threatened by other means of visual communication and electronics can assist in reversing the trend away from letterpress and photoengraving. Already there are more installations of electronic engravers in the U. S. and Canada than there are photo-chemical engraving plants. The nine electronic color scanners compared are: Time-Life, RCA, NET-Acme, Fairchild, R. Hell, Crosfield, Hunter-Penrose, Miehle, and Belin.

COMING OF ACE IN THE G.A.? Judson A. V. Hyatt. Pacific Printer Publisher & Lithographer XCV, No. 5, Nov., 1956, pp. 11, 12, 19, 20, 22, 24 (6 pages). Fifteen current applications of electronics in the graphic arts are listed. Cutting costs by help of electronics is looked to, to reverse the trend away from letterpress and photoengraving as a communication medium. The research of ten companies is reviewed in the field of scanners for picture reproduction. The Photo-Screener, Scan-A-Sizer and a color computer will be combined by Fairchild for 3 color R.O.P.

Photography, Tone and Color Correction

Progress in Color Separation. Robert Brunhouse. Graphic Arts Monthly 28, No. 9, September, 1956, pp. 76, 78, 80, 82, 84, 86 (6 pages). A general survey of the various photomechanical and electronic methods of masking.

THEORY AND PRACTICE OF: HALFTONE PHOTOGRAPHY. John Pince. The National Lithographer 63, No. 10, October, 1956, pp.

(Continued on Page 157)

Trade Events

- Southern Graphic Arts Association, annual convention, April 4-6, Battle House Hotel, Mobile, Ala.
- National Association of Litho Clubs, annual convention, May 2-4 Chicago
- convention, May 2-4, Chicago.
 Technical Association of the Graphic Arts,
 9th annual meeting, May 13-15, Philadelphia.
- Research & Engineering Council of the Graphic Arts Industry, 7th annual meeting, May 15-17, Benjamin Franklin Hotel, Philadelphia.
- 15-17, Benjamin Franklin Hotel, Philadelphia. National Association of Photo-Lithographers, 25th annual convention, Sept. 11-14, Chase Park-Plaza Hotel, St. Louis.
- National Metal Decorators Association, 23rd annual convention, Oct. 21-23, Chicago.

Litho Schools

- Canada—Ryerson Institute of Technology. School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.
- Chicago—Chicago Lithographic Institute, 1611 W. Adams St., Chicago 12, III.
- Cincinnati—Ohio Mechanics Institute, Cincinnati, Ohio.
- Los . Angeles—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.
- Minneapolis—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn. Nashville—Southern School of Printing, 1514
- South St., Nashville, Tenn.
 New York—New York Trade School. Lithographic Department, 312 East 67 St., New York, N. Y.
- Manhattan School of Printing, 72 Warren St., New York, N. Y. Oklahoma—Oklahoma A & M Technical School.
- Graphic Arts Dept., Okmulgee, Okla.
 Rochester—Rochester Institute of Technology
 Dept. of Publishing & Printing, 65 Plymouth
- Ave., South Rochester 8, N. Y.

 Philadelphia Murrell Dobbins Vocational
 School. 22nd and Lehigh, Philadelphia, Pa.

 Pittsburgh—Carnegie Institute of Technology.
- School of Printing Management, Pittsburgh.
 San Francisco—City College of San Francisco.
 Ocean and Phelan Aves., Graphic Arts Department.
- St. Louis—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.
- Vancouver—Clark College.

 West Virginia—W. Va. Institute of Technology.

 Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation Wade E. Griswold, Exec. Dir. 131 East 39th St., New York 16, N. Y. National Assn. of Photo-Lithographers Walter E. Soderstrom, Exec. V.P 317 West 45th St., New York 36, N. Y. Lithographers National Association W. Floyd Maxwell Exec. Dir. 381 Fourth Ave., New York 16, N. Y. National Assn. of Litho Clubs Frank H. Mortimer, Secy. 5917 33rd St., N. W. Washington 15, D. C. Printing Industry of America Bernard J. Taymans, Mgr. 5728 Connecticut Ave., N. W., Washington 15, D. C. Internati. Assn. Ptg. House Craftsmen P. E. Oldt, Exec. Sec'y. 307 E. Fourth St., Cincinnati 2.

lb.

25TH ANNUAL CONVENTION AND EXHIBIT OF THE NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

Chase-Park Plaza Hotels, September 11, 12, 13 and 14, 1957

EXHIBITORS

Addressograph-Multigraph Corporation American Type Founders Co., Inc.

PLAN NOW so you and your key men can

SEE the biggest NAPL Exhibit ever planned

HEAR provocative lithography discussions

PARTICIPATE in vital clinics on lithography

The lithographic industry is undergoing an industrial revolution. In the years just ahead there will be bigger markets of many more products for SOME lithographers. To keep up with this f-a-s-t m-o-v-i-n-g industry you will need to learn all you can about cold typesetting equipment — presensitized plates — masking in camera — roll-fed cameras — color separations from transparencies in short order — what's new in paper, ink, blanket, rollers, sleeves, improving dampening mechanism, pH control cutters and webfed presses which now turn out excellent high-grade process color booklets so fast they can't be counted.

This 1957 NAPL Convention program will be loaded with information to help weigh selling, production and management of lithography for tomorrow.

REGISTRATION DIVIDEND

Every registered guest will receive a copy of the 20th Anniversary Edition of the Lithographers Manual without charge—Normal Price \$15.00. The Lithographers Manual will be a compendium of lithography, profusely illustrated in line, halftone, and color.

The new Manual will be an indispensable source of reference on all phases of lithography, it has been completely revised and up-to-the future! It is complete and broad in scope. The list of contributing authorities represent the most advanced thinking in the industry. The unique combination of editorial studies and product presentations makes the Manual a key to the whole industry. The list of cooperating manufacturers contains the best names of the industry. The Manual will be a really handsome book. Hard-bound and large (page size $8\frac{1}{2} \times 11$), it will be completely produced in lithography and contain many illustrations in line, half-tone and color. Every lithographer who loves his craft will proudly own it.

Anchor Chemical Co., Inc. Ansco, A Division of General Aniline and Film Corporation Azoplate Corporation Russell Ernest Baum, Inc. Sam'l Bingham's Son Mfg. Co. Bourges Color Corporation Bridgeport Engravers Supply Company, Inc. W. A. Brown Manufacturing Co. Chemco Photoproducts Company, Inc. Consolidated International Equipment & Supply Company Consolidated Water Power & Paper Co. Craftsman Line-Up Table Corporation Davidson Corporation A. B. Dick Company
E. I. duPont de Nemours & Co., Inc.
Eastman Kodak Company Electronic Mechanical Products Co. Foster Manufacturing Company William A. Frangos, Inc. Gaetjens Berger & Wirth Inc. William Gegenheimer Co., Inc. Jos. Gelb Co. The Gevaert Company of America, Inc. Godfrey Roller Company C. P. Goerz American Optical Company The Graphic Supply Company M. Grumbacher, Hamilton Paper Co. Harris-Seybold Company Philip A. Hunt Company Ideal Roller & Mfg. Co. Ilford Inc. Interchemical Corporation, Printing Ink Division Kemart Corporation Henry P. Korn Lanston Monotype Machine Company E. P. Lawson Co., Inc. Litho Chemical & Supply Company, Inc. Lithoplate, Inc., a subsidiary of Harris-Seybold Co. Macbeth Arc Lamp Company Mark Specialty Co.
Minnesota Mining & Manufacturing Co.
National Carbon Company, a Division of Union Carbide
and Carbon Corporation
nuArc Company, Inc.
Ortman-McCain Company

nuArc Company, Inc.
Ortman-McCain Company
Oxy-Dry Sprayer Corporation
Harold M. Pitman Company
Polychrome Corp.
R B & P Chemical & Supply, Incorporated
Remington Rand Division of Sperry Rand Corp.
Repro Graphic Machines, Inc.
Roberts & Porter, Inc.
Robertson Photo-Mechanix, Inc.
Harry H. Rogers Company, Inc.
Roll-O-Graphic Corp.
Rutherford Machinery Co., Division Sun Chemical Corp.
H. Schmidt & Company
Sinclair and Valentine Co.
The Strong Electric Corporation
Sun Supply Company, Division Sun Chemical Corporation
Ulano Products Company
Unitronics, Incorporated
Van Son Holland Ink Corp. of America

National Association of Photo-Lithographers

Vandercook & Sons, Inc. S. D. Warren Company Zarkin Machine Co., Inc.

317 W. 45th St., New York 36, N. Y.



Portion of the plant of Litho Chemical & Supply Co., Lynbrook, N. Y., which was destroyed by fire on March 4.

Fire Hits Litho Chem Plant

On March 4 a fire gutted the main section of Litho Chemical & Supply Co.'s plant at Lynbrook, N. Y., causing loss of the company's supply of containers and finished products.

A section of the laboratory and shipping facilities was completely demolished, but George L. Thompson, president of the firm, stated that emergency power, heat and water were immediately established in undamaged production rooms and that conditions are returning to normal. It was further stated that fortunately no one was injured in the fire.

IPI Assistants Appointed

W. F. Cornell, division president, Interchemical Corporation, IPI, has announced new assignments involving three IPI district staffs.

Arthur W. Legge, former manager of IPI's Michigan territory, becomes assistant southern district manager with headquarters in Cincinnati. Herbert Gaetjens, recently assistant manager of the Chicago branch, takes over Mr. Legge's duties in Kalamazoo as manager of IPI's Michigan territory. Frank Healy, IPI sales representative in New York, is now assistant to the eastern district manager.

Sun Appoints Krinsly

Stuart Z. Krinsly has been appointed secretary of Sun Chemical Corp., Long Island City, it was announced last month.

Mr. Krinsly is a partner in the New York law firm of Schlesinger and Krinsly and is a member of the New York Bar Association. He is also a director of Ketchum & Co., Inc.

New Offset Firm Started

Alexander L. Wendrow, president of R. H. David Co., Inc., New York, a new firm engaged in offset work, has announced the firm's location at 479 First Ave. The new company occupies 8,500 sq. ft. of floor space and has its own complete platemaking department and a pressroom that includes four 22 x 29" Webendorfers. Mr. Wendrow stated that the firm is in a position to handle process lithography as well as black and white.

Mr. Wendrow has been engaged in the industry for the past 25 years. Previously he was president of Better Impressions, Inc.

C & M Purchased By Liskey

C & M Printing Co., Inc., Norfolk, Va., has been acquired by the Liskey Lithograph Co., also of Norfolk, it was announced last month by Lee R. Liskey, owner of the lithography firm. Mr. Liskey, who also serves as president of C & M, announced that new offset facilities will be installed at Liskey Lithograph and a merger of the two firms will be forthcoming.

Graphic Arts Night in Chicago

In an effort to develop closer relations among all graphic arts groups in Chicago, the Printers Supplymen's Guild of that city sponsored a "Graphic Arts Fellowship Night" at its March 1 meeting in the Furniture Club dining room. Entertainment included presentation of a film "In Search of Wonders" by its producer, geologist Malcolm Miller, who made the movie while travelling with Lowell Thomas during the filming of the Cinerama spectacular "Seven Wonders of the World." Included in the audience were many members of the Chicago Litho Club.

Litho Lab At Sure Dot Litho

Sure Dot Litho Supply, Inc. has remodeled and more than doubled its present floor space at 1636 W. Van Buren St., Chicago, including space



Robert Polzin

for a complete platemaking laboratory designed to further check controls and developments.

It is planned to be open to lithographers for any experimental purposes or problems which may develop. The firm, under the direction of Robert Polzin, assisted by Elmer Given, is the authorized distributor and technical representative in the Illinois and Michigan areas for the complete line of Premium grained zinc and aluminum lithographic plates and lithographic processing chemicals manufactured by R B & P Chemical & Supply, Inc. of Milwauber





THIS SPEED QUEEN "flyer" was specified as a one color job, black ink on white coated paper. But an alert lithographer suggested the use of Woodbine Colored Enamel. Presto—two colors! The customer readily approved.

Dealer reaction was extremely favorable. In fact, results were so outstanding that all future Speed Queen jobs of this type will be printed on Woodbine Colored Enamel. Best of all, the extra cost for the colored paper was only \$5.04 for a run of 10,000 mailing pieces.

Moral: There are many, many black-and-white jobs that can be given extra sales punch by merely using Woodbine Colored Enamel...letterpress or offset. Your customers will like it—they'll get better results.

the APPLETON COATED PAPER COMPANY
1204 N. MEADE ST., APPLETON, WISCONSIN

Consolidated Plans June Tour

Consolidated International Equipment & Supply Co. has made tour arrangements to accommodate members of the printing industry planning to attend the Graphic '57 International Exhibition of Printing Industries & Allied Trades to be held in Lausanne, Switzerland, June 1-16, Martin A. Ross, vice president has announced.

The tour will leave by air from New York May 25, and will touch at Zurich, Lucerne and Berne before arrival at Lausanne in time for the official exhibition opening ceremonies. Choices of return routes are offered via Madrid, Paris or London, Mr. Ross explained.

Sightseeing, entertainment and other features enroute are on the itinerary, he added.

Complete price for this tour, including round trip transportation, sightseeing, hotels and meals is \$606.00 per person. Wives are invited.

Interested lithographers should contact Mr. Ross at Consolidated's New York offices, 330 West 26th St.

Lithoplate Conducts Program

Personnel of Lithoplate, Inc., subsidiary of Harris-Seybold Co., recently lectured and demonstrated presensitized plates and deep etch platemaking to students of the offset division of Empire Linotype School.

Conducting the program for Lithoplate was Thomas J. Dunne, eastern sales manager. He was assisted in the plate demonstrations by William J. Foran, New York representative.

Marsh, Bloxsom Appointed

Appointment of Morris Marsh as sales manager and addition of Terry Bloxsom to its sales staff was announced by Ward Ritchie, president, Anderson, Ritchie & Simon, Los Angeles printers.

The sales staff will continue to represent Anderson, Ritchie & Simon, Silverlake Lithographers, Inc., Silverlake Bindery, Intaglio Service Corporation, and Meriden Gravure Company as a completely integrated graphic service.

"In 1956 our sales increased 15

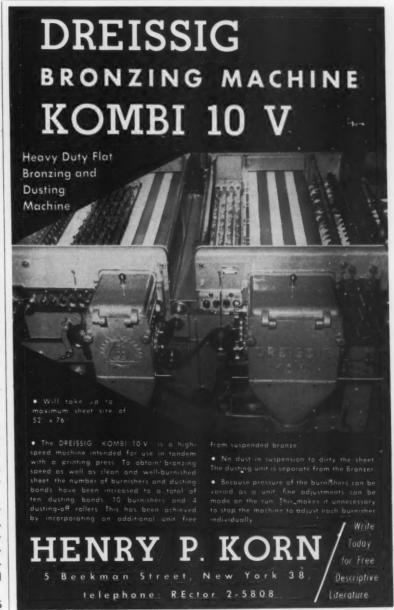
percent and we anticipate a record year in 1957," said Mr. Ritchie. "These changes will gear our sales organization to handle the increased business."

Berkeley Firm Installs Press

The Consolidated Printing Co., Berkeley, Cal. lithography firm, has installed its third and largest press, a 29" Miehle. Owners Bob Thompson and Jack Moffett recently have taken in as a third partner Robert Prouse, who has brought to the Consolidated plant the bindery equipment he previously operated at his Pacific Bindery. To make space for the additional facilities, the company has added a mezzanine floor to its building at 2743 Ninth St.

Green Printing Purchased

The Green Printing Co. of Oakland, Cal., combination shop which produces business forms by lithography, has been purchased by Vern C. Hollingsworth of the Account-A-Liner Co., business management service.





nalc

annual convention may 2, 3, 4 1957

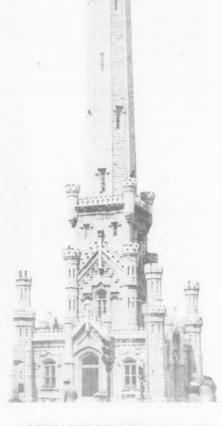
in chicago

Plan to attend
the twelfth annual
N.A.L.C. convention,
Palmer House, Chicago,
May 2, 3, and 4, 1957.
The latest technical
developments, as well as
everyday problems,
will be discussed
by outstanding
lithographic authorities.
Write today for
registration data.

NATIONAL ASSOCIATION OF

CLUBS

610 S. DEARBORN STREET . ROOM 2107 . CHICAGO 5, ILLINOIS



BBD Holds Open House

Bensing Brothers and Deeney, printing inks manufacturers, celebrated its 20th anniversary recently with an open house at the company's Philadelphia headquarters.

Printers, converters and other members of the graphic arts industry attending the affair were given a behind-the-scenes view of a modern inkmaking plant. A buffet supper was served.

Alphee Bouffard, of the company, introduced Harold G. Bensing, president, who welcomed the 250 visitors.

Frank A. Hamel, Jr. presented an introductory talk on ink manufacturing procedures and illustrated each step with a series of color slides. Mr. Hamel's talk was divided into two parts, covering oil ink (letterpress and lithographic) and flexographic inks. A tour of the BBD plant followed.

Starting with the write-up of specifications on an actual order, the visitors followed the order's processing through the various production stages, seeing how formulas are calculated ... how batches are weighed, mixed and milled . . . how inks are laboratory-tested for body, tack, gloss, drying, scuff resistance, etc. Color proofing of flexographic inks also was demonstrated on the company's multicolor production press. Edward Wade, Albert Tobia and other staff members supervised the tour, while S. W. Haug manned a special "ink information center."

Plan Management Conference

"Determining and Controlling Production Costs" is the theme for the annual Carnegie Institute of Technology Conference on Management in the Graphic Arts, to be held this year on April 11 in Pittsburgh.

Glen U. Cleeton, Dean, Carnegie School of Printing Management, announced the program will begin at 9:30 a.m. with a film titled "Work Simplification." Following the film a panel discussion on "Methods Improvement and Work Simplification" will be held. Panelists are Lewis D. Fykse, manager-methods, Harris-Seybold Co.; Donald E. Sommer, vice

president, Rudisill & Co., Inc., Lancaster, Pa.; and Raymond N. Blair, staff member in Printing Management, Carnegie Tech.

Employes Receive Stock

Fifteen employees of the Lehmann Printing & Lithograph Co., San Francisco, have been awarded blocks of stock in the firm varying from 100 to 600 shares as the result of the settlement of the estate of the widow of the firm's founder, Mrs. Adolph Lehmann.

New Mead Contest Feature

Mead Papers, Inc., Dayton, recently added a new feature to its Monthly Awards Contest in the form of framed certificates which will be awarded each month to the three salesmen winning the top awards, for presentation to their customers. The contest is now in its eighth year and is open to merchant salesmen of all companies who are authorized distributors of Mead and Wheelwright papers.

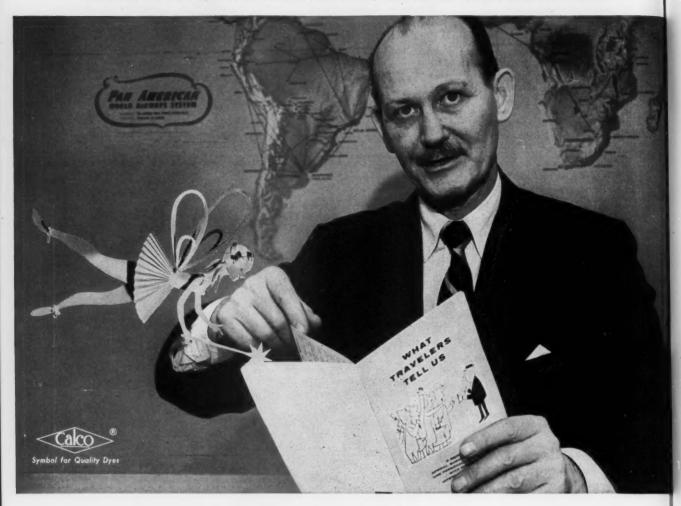


Sales Offices: Atlanta, Chicago, Dallas, Kansas City, Los Angeles. New York, Pittsburgh, San Francisco

In Canada: Union Carbide Canada Limited, Toronto

"Calcofluor* really put 'Glow-White' into our new travel booklet!"

SAYS MR. H. J. LAIRD, MANAGER-SALES PROMOTION, PAN AMERICAN WORLD AIRWAYS SYSTEM



"Am I glad we selected a sparkling white CALCOFLUOR-treated paper for this booklet! Its superior whiteness makes type more legible and inviting to read... cartoons are crisper and sharper, too. The booklet's effectiveness as a sales tool has been greatly increased through the use of this paper."

Now! A sure-fire way to give any message an extra selling punch! Just specify papers that contain the "Glow White" brilliance of Calco-FLUOR fluorescent dye. These papers sharpen details in your halftones ... improve legibility of print... provide maximum contrast between blacks and whites.

Papermakers...printers...package designers...advertising men are enthusiastic about CALCOFLUOR-treated papers for such jobs as

Catalogs • Annual Reports • Sales Literature • Manuals Business Cards • Folders and Greeting Cards • Programs • Books Pamphlets • Labels • Packages • Letterheads • Business Forms

Specify CALCOFLUOR-treated papers when you want a crisp, clean job that has selling power and a quality look. Ask your paper jobber for samples, or write to Cyanamid for further information.

*Trademark

CYANAMID

AMERICAN CYANAMID COMPANY DYES DEPARTMENT Bound Brook, New Jersey

New York · Chicago · Boston · Philadelphia

Charlotte · Providence · Atlanta · Los Angeles
Portland, Oregon

North American Cyanamid Limited - Dyes Department Montreal and Toronto

CALCORLUOR

Mexican Lithographers Visit Kodak Plant



Donald McMaster, vice-president and general manager of Eastman Kodak Co., welcomes members of the Mexican Lithographic Industry Productivity Team on their recent visit to Eastman Kodak Co., Rochester. Highlighting the team's January visit were informational sessions at Kodak's graphic reproduction technical service center, where such techniques as the use of contact screens and short-run, "pleasing color" printing were discussed and demonstrated.

TEN MEMBERS of the Mexican Lithographic Industry Productivity Team recently visited Eastman Kodak Company, Rochester, for a two-day studytour of the company. The group was welcomed by Donald McMaster, vice president and general manager of Kodak. Highlighting the team's January visit, were informational sessions at Kodak's graphic reproduction technical service center, where such techniques as the use of contact screens and short run, "pleasing color" printing were discussed and demonstrated.

Visiting members of the Produc-

tivity Team included Carlos Portillo, Litografia Moreau, S. A., Mimosa, group leader; Fernando Aranguren, Artes Graficas, S.A., Guadalajara; Federico Cantu, Impresora del Norte, S.A., Monterrey; Luciano Lopez, Litografia "El Cromo," S.A., Mexico, D. F.; Florencio de Luna, Publicidad y Ediciones, S.A., Mexico, D.F.; Yrma Suastegui, Publicidad y Ediciones, S.A., Mexico, D.F.; Eduardo Torres, Litografia Mayab, Mexico, D.F.; Jose Vidal, Reproducciones Artisticas, S.A., Mexico, D.F.; Benito Zamora, Litografos Unides, Mexico, D.F.

Under the guidance of the U. S. International Co-operation Administration's project manager, Theodore G. Markow, the group's itinerary includes a five-week study-tour of the U. S. lithographic industry, including visits to lithographic companies, equipment manufacturers, research organizations, trade associations and labor organizations. Recently the group toured the plant of Mergenthaler Linotype Co. in Brooklyn.



The only paper to survive

A Bath in Boiling Oil



RESISTALL dramatically lives up to its name

When a nationally known airplane manufacturer (name on request) needed a paper for parts records submerged in boiling oil, tests proved Resistall to be the only choice. Resistall Index Bristol, like Resistall Linen Ledger, is the most resistant rag content paper ever made.

These papers defy damage from extreme heat or cold, grease, many chemicals and alkalis, perspiration and and water without surface damage. boiling abrasion even when wholly immersed in oil or water. When soiled, they can be sponged clean with soap

PRESS PERFORMANCE

is on a par with the other Members of L. L. Brown's Famous Family of Fine Correspondence and Record Papers.

This built-in feature qualifies Resistall papers for a diversity of uses including documents, records and tags. In addition, Resistall Linen Ledger and Index Bristol are permanent record papers unconditionally guaranteed for longevity and durability. And they add only negligibly, if at all, to actual total accounting costs.

N PAPER COM



Ledgers, Bonds, Index Bristols, Linens

Since 1849

ADAMS, MASSACHUSETTS



BBD Appoints Hamel And Tobia

Frank A. Hamel Jr. has been appointed to the newly created post of executive vice-president by Bensing





Tobia

Hamel, Jr.

Bros. and Deeney, Philadelphia. He has been with the company for 11 years, serving in various research capacities, most recently as vice-president in charge of research.

Bensing Bros, and Deeney also announced the appointment of Albert M. Tobia as vice-president in charge of research and production. A chemical engineer, Mr. Tobia has been with BBD since 1951 and most recently has been the company's technical director. He is a member of the research committee of the National Printing Ink Research Institute. Sydney S. Shapiro has been named to succeed Mr. Tobia in the post of technical director.

R & E Council Meets May 15-17

The 7th Annual Meeting of the Research and Engineering Council of the Graphic Arts Industry, Inc. will be held at the Benjamin Franklin Hotel, Philadelphia, May 15-17. Prior to the R & E meeting, the Technical Association of the Graphic Arts also will conduct its annual meeting. It will be held May 13-15 at the Benjamin Franklin. General chairman for the R & E meeting will be Samuel F. Chernoble, president of the Comet Press, Inc., New York, who is the Council's 1st vice president.

Highlight of the program, tentatively set by R & E, will be a panel of experts on color printing who will cover the problems in scanning and masking operations in photoengraving and lithography and of the "moire" patterns. Other topics are expected to cover efficient handling of materials, competition for multicolor printing, problems encountered

in "stepping-up" to 4-color presswork, standards for color appraisal, and the present needs of the graphic arts industry. It is expected also that consultants on ink and paper will be present to help those who have problems with these materials.

Arrangements have been made to visit many outstanding printing establishments in the Philadelphia area. Among the plants to be visited will be Curtis Publishing Co.'s Sharon Hill plant, where the Saturday Evening Post is printed; the ANPA Research

Institute Laboratory; Imperial Type Metal Co.; Triangle Publications, Inc.; and the Philadelphia Evening Bulletin.

Ritter Resigns At Dexter Press

Robert A. Ritter, former plant manager for Dexter Press, West Nyack, N. Y., recently announced his resignation from the company. Mr. Ritter formerly held positions with the U.S. Government Printing Office; Magill-Weinsheimer, Chicago; and Calvert Lithographing, Detroit.



PRICE LIST

Sheet Size	Quantity per Package	Price	ROLLS
20" x 26"	100	\$22.00	54" x 100 ft. \$ 25.00
24" x 26"	100	30.00	54" x 200 ft, 48.00
26" x 38"	100	41.00	54" x 500 ft. 112.00
38 1/2" x 54"	50	41.50	
42" x 54"	50	45.50	F.O.B. N. Y., Our Plant All Prices Subject to Change
48" x 54"	50	52.00	
54" x 60"	50	65.00	
54" x 72"	50	78.00	
54" x 78"	50	84.50	





New home of Phillips & Van Orden Printing Co. is a six-story building, 800 ft. long, occupying a two-block area. The firm initially will occupy approximately one-third of the building at the left end.

PHILLIPS & VAN ORDEN CO., major San Francisco printing firm operating letterpress, direct offset, and conventional lithography equipment, has purchased the 518,000 sq. ft. Southern Pacific Terminal warehouse building on Berry St. for approximately \$1,300,000 and is spending around \$1,700,000 more for alterations and new equipment. The firm already has installed in the building a recently purchased fourunit 35" ATF web-fed offset press and a 30-pocket perfect binder. By the first of next year equipment presently in operation in its Brannan St. plant will be moved to the new location. This includes nine Hoe presses, a direct offset press, and extensive composing room equipment. The company will initially occupy only about 175,000 sq. ft. at the west end of the warehouse building.

The move has been planned with the firm's future operations in mind. Joseph A. Forbush, vice president and general manager, predicted that the present force of 400 will be doubled by the end of three years. He also anticipates that eventually pulp will be delivered directly to the plant to be made into paper as part of the regular production-line printing process.

Phillips & Van Orden Co. and the Pacific Press of Los Angeles, both subsidiaries of the J. W. Clement Co. of Buffalo, N. Y., both recently have installed similar web-fed lithography presses, the first four-unit web-fed lithography equipment on the West

Coast. Although no announcements have been made by the company, it is anticipated that magazines, books, and telephone books will be printed on the San Francisco press. The California State Automobile Association has announced that its 300,000-copy bi-monthly magazine, Motorland, is to be lithographed at Phillips & Van Orden, and the California State Teachers Association has stated that its monthly magazine will also be produced by lithography at the same plant.

The installation of edition bookbinding equipment by the Cardoza Bookbinding Co. in San Francisco has sparked interest among most local printers with large equipment in the possibility of printing by letterpress or lithography a variety of books including school books, and Phillips & Van Orden is understood to consider its web-fed lithography equipment adaptable to this type of work.

A recent dispute between the local Printing Pressmen & Assistants (commercial) union and the Web Pressmen's (newspaper) union has indicated that plans for printing telephone books on the web-fed lithography press also have been considered. Phillips & Van Orden now prints all of Northern California's and many of the Northwest's telephone books on its Hoe presses. The newspaper union, which now has jurisdiction over that work, has moved to establish its rights to the same work if it is done on the lithography press.*

30 Years With Donnelley

Harold W. Tribolet, manager of the R. R. Donnelley & Sons hand bindery, observed his 30th year with the firm last month. Starting as an apprentice in the bindery in 1927, he became manager eight years later in 1935. Over the years he has consistently maintained the standards of fine old world hand craftsmanship set up at the start of this unique operation and has designed many of the fine bindings for which the company is famous. Valuable modern volumes are bound and rare books and precious documents restored and preserved by this department. Mr. Tribolet is a past president of the Society of Typographic Arts of Chicago, and prominent in activities of other graphic arts organizations.

Eisberg Named by Industrial

Industrial Lithographic Co., Inc., New York, last month appointed Art Eisberg as sales manager of the firm's display division. Mr. Eisberg joined the company in 1948. New appointments to the sales staff include Peter Gabriel and Warren Kelly.

The packaging division of the company announced that Max Chuse has joined the sales staff as Pennsylvania representative with offices located in Philadelphia.

New Gravure Plant Started

In response to increased volume of rotogravure printing on the West Coast, Southern Gravure Service, Inc., Oakland, Cal., has started construction of a new building in Berkeley, twice the size of its present quarters Southern Gravure is an affiliate of the Louisville firm of the same name. Established in Oakland in 1952, it is the only rotogravure cylinder engraving operation on the Pacific Coast.

National Steel Names Officers

National Steel & Copper Plate Co., with general and executive offices in Chicago, recently announced its officers. They are A. R. Bessman, president; L. A. Steinmiller, executive vice president in charge of sales; and Seymour Pass, secretary and treasurer.

The LANSTON Camerama

New.. Improved.. More Efficient Overhead Camera for.. Offset

...Gravure
...Silk Screen
...Photo Engraving

View shows the Camera from the dark-room end which includes: ground glass in swinging frame . . . manifold-operated, vacuum film holder in operating position; for handling film in sizes up to 18 x 22" and the 30 x 40" glass covered pressure type copyboard. All these features included in basic price of \$2950.00.

High in efficiency, yet low in price, this versatile overhead camera handles any photographic requirement economically, speedily and accurately. Constructed of aluminum and steel, compactly designed, easy to operate. Installed without rigging.

Many of the features included in this camera are found only in models costing up to double the price! The Lanston Camerama offers unlimited profit-making opportunities with only a limited investment. SEND FOR FULL INFORMATION TODAY—Use the coupon below.



LANSTON MONOTYPE COMPANY

A DIVISION OF LANSTON INDUSTRIES INCORPORATED

24th & Locust Street

Philadelphia 1, Pa.

AN OUTSTANDING VALUE, \$2950.00

BRANCHES:

Atlanta—Chicago—New York—Philadelphia

DISTRIBUTORS: Rocky Mountain: A. E. Heinsohn Inc., Denver, Col.

Chicago: Roberts & Porter, Inc.

South America: Companhia Lanston Do Brazil, Rio De Janeiro

STEP & REPEAT
MACHINE

MH OVERHEAD
CAMERA

VERTICAL PLATE
COATER

LANSTON MONOTYPE COMPANY
(A Division of Lanston Industries Incorporated)
24th & Locust Streets, Philadelphia 1, Pa.
Send new literature on the Lanston Camerama |
Step & Repeat Machine | MH Overhead Camera |
Vertical Plate-coating Machine |
NAME
FIRM
CITY

STATE

CHOOSE FROM THE SAFETY PAPER LINE

Preferred



















La Monte Safety Bond . . . 100% RAG National Safety Paper . . . 50% RAG Bankers Safety Paper . . . 50% RAG Safety Check Paper 25% RAG Anchor Safety Paper SULPHITE Exchange Safety Paper . . . SULPHITE Basketweave Exchange Safety Paper . . . SULPHITE

Safety Coupon Papers Safety Ticket Papers Safety Bristols

Specially engineered Safety Papers for specific purposes

Lamonte SAFETY PAPER FOR CHECKS

> GEORGE LA MONTE & SON · NUTLEY 10. NEW JERSEY FOR DISTRIBUTORS SEE THE PAPER CATALOG

TAGA Pians Phila. Meeting

Lighting methods and various aspects of color in the graphic arts will get considerable attention at the 9th annual meeting of the Technical Association of the Graphic Arts next month in Philadelphia.

Joseph W. Mazzaferri, of Colorcraft Lithoplate Co., Philadelphia, announced the program for the meeting late in March. (Complete details will appear in the May ML.)

The meeting is scheduled for the Benjamin Franklin Hotel, May 13-15. The first two days will include technical papers, films and other demonstrations, while the third day is set aside for visits to graphic arts plants in the area. Members of the Research and Engineering Council also will take part in the Wednesday visits, with their meeting set to start the next day at the same hotel.

Papers on color separation, arc lamp performance, ROP color, color investigation, color scanning and illumination for color viewing are on the program, indicating the increased interest in this phase of printing. Even the banquet speaker Monday evening, Dr. Isay Balinkin, of the University of Cincinnati, will discuss color.

Other talks will be concerned with ink misting, alcohol photo resists, sheet moisture, dark reaction in bichromated colloids, nylon printing plates, Dow Etch process, ink properties during printing and measurement of ink mileage.

Label Mfrs. Look For Profits

The Label Manufacturers National Association, Inc., prompted by a continuing decline in label manufacturer's profits despite annual increases in label production, now approximately \$300 million, will institute a study of volume, cost and price trends. This announcement was made by Robert J. Rodgers, vice president of H. S. Crocker Co., Inc., president of the association.

"Numerous theories," Mr. Rodgers stated, "have been advanced to explain the failure of the industry to achieve results even nearly comparable to those being achieved by man-

ufacturers of metal and glass containers and container board and other principal suppliers in the packaging field." Mr. Rodgers indicated an independent management consulting firm in New York will conduct the survey.

Guest Speaker For POPAI Show

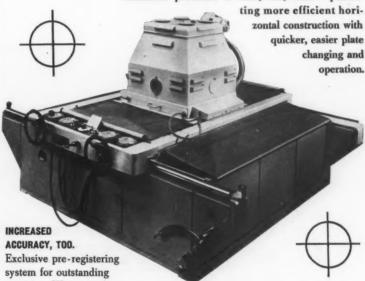
Henry G. Saperstein merchandising expert will be a special guest speaker at the two merchandising forums of the 11th Annual Symposium and Exhibit of the Point-of-Purchase Advertising Institute, April 10-12, at the Palmer House in Chicago.

Robert D. Phelps, of the Phelps Manufacturing Company, Terre Haute, Indiana, general chairman of the POPAI show, said Mr. Saperstein will speak to the point-of-purchase group at the opening of the merchandising forums on April 10 and April 12. Mr. Saperstein will relate the collective problems in merchandising to the role which point-of-purchase advertising plays in the over-all merchandising industry, he said.

major new development in STEP AND REPEAT production

REPETEX

Take advantage of advanced design that has made REPETEX Europe's leading step-and-repeat machine. New light source (mercury vapor lamps or 2,000-watt xenon point light) cuts exposure time in half, giving you a big increase in production. Cold light eliminates problems of heat, ash, dust — permit-



precision. Wear-proof construction gives unaffected accuracy through years of operation. Sequencecontrol system for semi-automatic operation. Offset plate size up to 65" x 77".

WRITE OR CALL TODAY FOR FULL DETAILS ON HIGH STEP AND REPEAT PRODUCTION AND PRECISION WITH UP-TO-DATE REPETEX MACHINE.



Amsterdam Continental Types and Graphic Equipment, Inc. 268 Fourth Avenue. New York 10, N. Y. Spring 7-4930

Importers of Europe's leading camera and platemaking equipment by HOH & HAHNE and S & S Offset Proof Presses. Please write for specifications.

To America's Finest Printers and Lithographers



This Trade Mark is the oldest roller trade mark in the world. It is a guarantee of dependability.

Since 1826, generations of exacting printers and lithographers have found our products dependable aids to smooth production. Ceaseless research, finest raw materials, careful craftsmanship and rigid inspection have put into Bingham products the reliability that means RESULTS.

These guaranteed products will serve you well:

PRINTERS' ROLLERS

- Standard Composition
- Craft Non-Meltable Composition
- Star Composition
- Rubber Rollers
- Vulcanized Oil
- Nu-Clear
- Wilprint

LITHOGRAPHERS' ROLLERS

- Machine sewed Moleskin, Velveteen and Molleton or ready-made covers of these materials
- Crescent Oil
- Crescent Rubber
- · Nu-Clear
- Aquatex
- Rubber roller regrinding and polishing



Roller Makers since 1826

406 PEARL ST., NEW YORK 38, N. Y.

PHILADELPHIA, PA. 1315 Race St. BALTIMORE, MD.

ROCHESTER, N. Y.

CAMBRIDGE, MASS.

JERSEY CITY, N. J. 257 Brunswick St. GARWOOD, N. J. 648 South Ave.

Service Branches: Equipped and stocked for immediate delivery with all popular press rollers.

SPRINGFIELD

162 Taylor St.

WEST HAVEN

49 May St.

RICHMOND 614 E. Main St.

MEMBER HUNDRED YEAR ASSOCIATION



COLOR PHOTOGRAPH BY ANTON BRUING

Everybody's an expert on color

That's why Howard makes its Bond in so many clean, clear, carefully chosen colors—so the expert in your business (you perhaps?) can select the shades that fit your needs and wishes *precisely*.

Whether for effective business forms—or for particularly outstanding letterheads—Howard colors earn

attention, action, and respect. Used for all kinds of business printing, they provide an extra color at no extra color cost. See them. Your printer or paper merchant has samples—twelve of them in addition to Howard's famous whitest white.

PRINTERS! This message appears in advertising magazines read by your customers.

HOWARD PAPER MILLS, INC. . HOWARD PAPER COMPANY DIVISION, URBANA, OHIO

Howard, Bond

"The Nation's

 $\textbf{\textit{Companion Lines:}} \ \ \textbf{Howard Ledger} \ \bullet \ \ \textbf{Howard Mimeograph}$

Printed on Maxwell Offset

Business Paper"

Howard Writing . Howard Posting Ledger

Basis 80 - Camberra finish



Howard Paper Mills, Inc. / MAXWELL PAPER COMPANY DIVISION / Franklin, Ohio

We'd be pleased to send you samples of our eight finishes and two tints



Ettenberg on Typography

Eugene Ettenberg, of Gallery Press, New York, last month discussed "What Is Good Typography?" before a meeting of the Navigators club of that city.

The dictionary definition of typography is inadequate, in Mr. Ettenberg's opinion. He used specimen slides to show that "typography is an art, and with it, the typographer heightens the sense of the text itself. But typography is not only the selection of a suitable type face and an appropriate measure. It is concerned with how type has been used, how it is used, and most important, how it will be used."

The speaker said he has no fixed formula. Rather he uses a "huntand-peck method of determining spacing. "While it is important to decide on a type size and a measure," he declared, "it is even more important to arrive at proper spacing, for, in one form or another, spacing determines the speed at which the matter can be read."

Sales Up, Profits Down

International Paper Co. and its subsidiaries in 1956 set new records in production and sales of paper and paper products, but profits, however, declined 6.5 percent from 1955. Net profits for 1956 amounted to \$86,628,013, compared with \$92,684,724 in 1955.

About half of the decline in net profit was in the firm's new Long-Bell Division, John H. Hinman, chairman of the board, reported in the company's 59th annual report. The new division, Mr. Hinman said, is engaged primarily in lumber and plywood production and these sales reflected a recent downturn in the residential construction field.

RIT Offers Courses

The departments of Photography and Printing of the Rochester Institute of Technology will offer a variety of special approved, in-service courses for teachers in the summer of 1957, the school announced last month.

The summer courses will run from

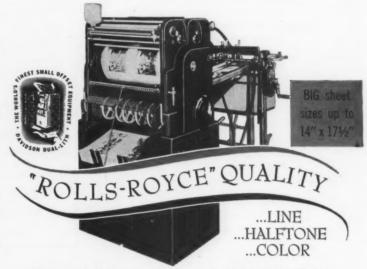
July 8 through Aug. 16. Closing date for registration for photography courses is May 15. Registration for printing courses will conclude July 1.

All courses are approved by the Department of Education of the State of New York for in-service training and credit in the areas of professional improvement and related activities.

Three programs will be offered in the printing area. Two of the courses, primarily designed for industrial arts and vocational teachers, are general in nature, while the other offers advanced training in offset lithography.

Messner Opens Direct Mail Day

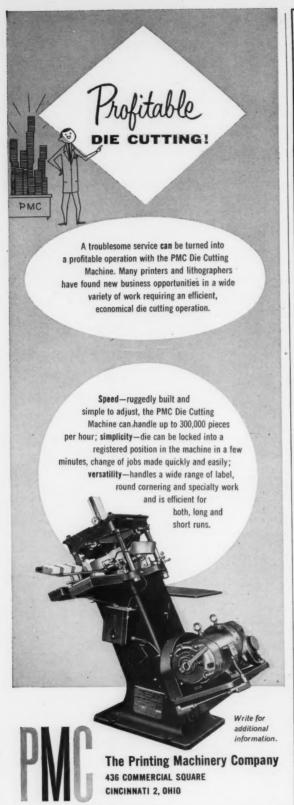
Richard Messner, vice president of Marbridge Printing Co., Inc., a recent recipient of the 1957 Service-to-Industry Award of the Navigators, New York graphic arts club, delivered the initial "warm-up" talk at the Direct Mail Day in New York meeting, March 27. The affair, sponsored by 34 participating groups of users, producers and suppliers of direct advertising and printed promotion, was held at Hotel Roosevelt and was highlighted by three sessions featuring practical information for members of the industry.



Quality is the hallmark of Davidson Dual-Lith Model 233. This fine offset machine produces craftsmanlike offset worthy of the best traditions of the platemaking and lithographic arts. It's evident in every printed sheet—the clean, sharp line work, sparkling halftones, delicate vignettes and brilliant multicolor reproduction in perfect register!

Precision is built into the Model 233—that's why it appeals to operators of limited and long experience alike. And Davidson's exclusive 2-Cylinder Principle provides 8 printing processes: simultaneous two-sided lithography, Davengraving, offset lithography, dry offset, letterpress, imprinting, numbering and perforating!

DAVIDSON CORPORATION
A Subsidiary of Marganthaler Linetype Company
BYTHEORY STREET, RECORD TO BY BYTHEORY TO BYTHEORY TO BYTHEORY STREET, RECORD TO BYTHEORY TO BYTHEORY TO BYTHEORY STREET, RECORD TO BYTHEORY TO



How Thousands of Printers are "Drying Up" Profit Leaks

Regardless of the type of

acts instantly—creating a mirror-smooth, dry surface on all types of stock and ink. Nontoxic H&H "Yel-low Label," made from edible starches, is harmless to men as well as presses. Non-abrasive, non-clogging, free-flowing and smooth, it eliminates clean-up jobs on sticky gripper bars, sticky hands and sticky nozzles caused by wet spray operation.

Since a single pound of H&H will dry the same

sheet area which, requires a full gallon of wet spray, exhaust fans are no longer essential. And the elimination of 7 pounds of liquid from the air (for every gal-lon of wet spray used) eliminates fogging — pro-tects electrical parts and workers.

Sorters, joggers and cutters find that H & H DRY-SPRAYed sheets handle easier, faster, smoother easier, faster, smoother . . . no rough drag or scratching of sheets, no lifts of stock spoiled by wet drip. Sheets spoiled by wet drip. Sheets separate easier, gather faster, save labor costs. Reduced wear and service on presses and spray equipment cut down-time costs. All these advantages, combined with the low perpound cost of H&H Yellow Label DRYSPRAY save up to 75% of spray costs. to 75% of spray costs.

H&H Yellow Label DRYSPRAY is available in
drums of 10, 25, 50 and 100
lbs. A generous FREE 5LB. TRIAL SUPPLY is yours on request.

H&H PRODUCTS • 1930 S. State St., Chicago 16, III.

Your 4-in-1 guide to better, cheaper printing jobs

Whether it's a tricky direct mail piece or simple sign — special magazine insert or routine office bulletin—letterhead or giant display—any job will be better, easier, with hundreds of preparation and production facts at your fingertips in this book. It's an encyclopedia of the promotion and advertising arts, postal guide, buying guide, and type specimen book combined into one, and arranged for quick reference.



PUBLISHED 2nd Edition

Melcher and Larrick's

PRINTING AND PROMOTION HANDBOOK

	D PROMOTION HANDBOOK
mail work, you'll find	effective printing jobs budget. Whatever your promotion, or direct 438 Pages Illustrated \$7.00
the information that will save you hours of expensive trial-	FREE EXAMINATION COUPON
and-error experi- menting in this book. Alphabetically ar-	McGraw-Hill Book Co., Dept. MLG 4 327 W. 41st St., New York 36, N. Y.
ranged are hundreds of facts on every- thing from photo- graphs to folding, binding, and finish- ing — from selecting type faces to selec-	Send me MELCHER AND LARRICK'S PRINTING AND PROMOTION HANDBOOK for 10 days' examination on approval. In 10 days, 1 will remit \$7.00 pile few cents for delivery costs, or return book postpaid. (we pay delivery costs if you remit with this coupon; same return privilege.)
tion of mailing lists— from standard paper	(PRINT) Name
sizes and weights to where-to-buy-it in- formation and typical	Street City Zone State.
prices to help you compare an estimate. A valuable daily	Company
time- and money- saver for beginner	Position For price and terms outside U. S., MLG-2
and professional alike.	write McGraw-Hill Int'l., N.Y.C.

Ink Makers Discuss 'Cost-Price Squeeze'

PRINTING INK makers from San Francisco to New York and Toronto met in Chicago recently at the call of the National Association of Printing Ink Makers to discuss their costprice squeeze and other problems engendered by inflation. Their troubles, it was asserted, stem from the ink industry's effort to hold the price line despite spiraling production costs. Over the year, the industry very proudly points out, their prices have risen barely 10 percent, although the cost of raw materials, labor and other operating expenses have risen 33 1/3 percent.

Printers once had to figure that ink used represented about five percent of the total cost of a job. Today the proportion has dropped to less than half that figure, it was stated. Faced now with the certainty of still more inflationary pressure, ink makers feel that their prices must necessarily be advanced.

Pros and cons of what to do about this situation were debated at the Chicago meeting and one proposal emerged in which lithographers and printers are particularly involved.

One of their big operating losses, the ink makers declared, is caused by small orders which call for special color matching. Overhead costs for putting an order, big or little, through an office run to an average of \$5 each, various ink men revealed. Matching costs average not less than \$10 and commonly much more. Yet, as most printers are aware, speakers declared, the charge for these small matching orders has not, in the past, commonly included these two elements of the true cost.

A charge of \$3 per any special match would be a step in the right direction, a committee report suggested, although that small figure would still be far from realistic. One proposal offered was that a match might still be made at no charge, if the printer buys a given volume of

ink a month, somewhat as banks cash checks free, provided the patron maintains his balance at a given level.

At the same time the ink makers were generally agreed that they should familiarize their customers with the fact that a close match often can be selected from standard stocks and can be obtained without any extra charge for a tailor-made match.

Presensitized Plate Forum

An open forum on presensitized plates, sponsored by the Manhattan School of Printing, Offset Div., 72 Warren St., New York, was held March 30. The forum included demonstrations and a panel discussion. Manufacturers whose products were represented included Enco, Lithoplate, Inc., Polychrome and Minnesota Mining & Mfg. Co. Suppliers on hand were Chemco, Harold M. Pitman Co. and Roberts and Porter.



Litho Research Praised At Gravure Convention

ONE OF THE highlights of the Gravure Technical Association convention in Chicago last month was a discussion of offset, letterpress and gravure and their comparative merits. The presentation, made March 7, the second day of the three-day convention at the Drake Hotel, was designed to help the purchasing group in attendance toward a better understanding of the advantages and disadvantages of the three processes. E. H. Balkema, general purchasing agent for Colgate-Palmolive Co., was moderator.

The Lithographic Technical Foundation was accorded unexpected acclaim during this discussion. The "plug" came from Jack L. Roser, technical director of graphic arts operations for Milprint, Inc., Milwaukee, package printing firm.

The lithographing industry, Mr. Roser declared in his exposition of the process, was the first in the graphic arts field to use systematic scientific research to improve its products. This policy, he said, was launched just 30 years ago, on March 1, 1927, at the University of Cincinnati, with the eminent scientist, Dr. Robert F. Reed, as director.

His account of subsequent technical progress credited to the Foundtion there and in Chicago was followed attentively by the gravure printers who only recently established their own research facilities on lines similar to the L.T.F. pattern.

Recalling the early "stone age" struggles of lithography, Mr. Roser created considerable merriment when he told how a stone etching for a one-sheet poster might weigh 350 pounds and pressmen would greet each other in the morning with the question "How's your rupture today?"

Continuing, he sketched the changes from flatbed to rotary presses, after zinc plates replaced the cumbersome old stone engravings. Immediately, he said, "every lithographer became a bathroom or basement chemist and their so-called secret formulas accomplished wonderful things."

Gradually, he said, lithographers realized their great need for tackling their problems scientifically and the LTF was created to serve them. Listing, some of the industry's advances, he went on to declare that the modern lithographic press "is the most efficient instrument devised for printers." He mentioned the size range from 14×22 " single color to the giant 53×77 " five-color presses and said it is rumored that more large multi-color presses are on order right now than any other type of press in the country.

He paid tribute to the blanket makers who have produced what was "unbelievable" a few years ago and referred to the "wonderful job" ink makers have done in providing more concentrated colors, new groups of pigments that do not bleed in the water required for the litho process, and new gloss and metallic inks. Right now, he added, they're trying to produce faster drying inks.

Research, Mr. Roser went on, has developed plates that will give 5,000, 000 impressions, while work in the atomic field at the University of Michigan promises even greater perfection for litho plates. From stone and zinc, he said, plates have moved to aluminum, copper, steel, chromium and combinations.

Of particular interest to package printers was his challenging assertion that "lithography is probably the process best suited to all work on fine cardboard." The resilient offset press blanket, he explained, can handle box board of varying caliper and lay down solids or tints with which other printing processes cannot compare.

Directly addressing the printing buyers present, Mr. Roser reminded them that lithography today represents the systematically accumulated technical knowledge developed over many scores of years. He advised them to give as close attention to their art work before sending it to the lithographer as they do after the job comes back to them. The printer, if consulted, he said, could be of help on layout and in selecting "the color you think you need." If given an opportunity to advise on color specifications, he said, the printer might be able to put his masking techniques to work and cut down on the number of colors called for.

"Be assured," he concluded, "that the lithographing industry is going to continue its research program and try to take every advantage of science in our efforts to improve the quality of the jobs we do for you. And, in the end you will say 'It's a beautiful job'."

Some of Mr. Roser's assertions on lithography's superior advantages for package printing were greeted with audible disapproval by his audience of gravure printers. But when he concluded they applauded him warmly for his courageous and undaunted effort to "sell" lithography in a "lion's den" of competitors.

Preceding Mr. Roser, Edward L. Boram, superintendent of printing for Sutherland Paper Co. presented the advantages, and disadvantages as well, of letterpress for package production. One good natured "dig" was his remark that Sutherland's letterpress department "doesn't need any electronic engineers to keep the presses running. Nor do we need chemists to keep the plates from going blind." The Marathon Corp's use of four printing processes gave the next speaker, Harold C. Sperka, manager of Marathon's graphic arts plants, opportunity to make an impartial comparison of various factors printing buyers weigh before selecting the process to be used. He found good in all processes and certain advantages in each for producing results under given conditions. Final speaker on the symposium was Beaven W. Mills, sales manager, gravure cartons, Robert Gair div., Continental Can Co., who discussed the relative merits of sheet fed and web fed gravure work.

(Continued on Page 149)

LITHO CLUB

(Continued from Page 103)

ler & Ferrigno; STRIPPING: Richard Englander, Lithoco, Inc.: INKS: Daniel J. Gallagher, Crescent Ink & Color Co.; Paper: John Williams, D. L. Ward Co.; and RESEARCH & DEVELOPMENT: Bernard R. Halpern.

The questions covered all phases of litho work, with emphasis on standards in the industry. One member asked "Why doesn't the ink industry work with the lithographic industry in developing a standard light for matching colors?" Mr. Gallagher replied that very little progress has been made in that direction, despite the worth of the idea. "A number of groups have worked on the problem, but every artificial light source is open to controversy," he stated. "Once customers agree to take color matches made under standardized light, lithographers should tell us and we will do everything we can." Mr. Mazzaferri added that the Inter-Society Color Council also is at work on the problem.

Another question dealt with the need for standardized, balanced off-set process colors. Mr. Mazzaferri said that LTF is seeking such a balanced set. "The yellow commonly in use is theoretically correct; magenta is as good as can be made (although more than 50 percent of all lithographers actually use a red ink); and the cyan varies from shop to shop." The Foundation, he stated, is checking press sheets from a number of shops to determine how close the process inks are to the theoretical colors desired.

Still another member wanted to know why paper has not been standardized. Mr. Williams said the main difficulty is that printers are used to the old terminology and don't like to learn an entirely new concept. "A few years ago we attempted to standardize on the weight of a sheet 25 x 40" or 1000 sq. in., but it wasn't very successful," he said.

Some of the other questions and answers follow:

Q: What is blue glass used for?

Halpern: Used in stripping up negatives for imposition. It gives a higher degree of accuracy than goldenrod paper, and is not, like goldenrod, affected by humidity. To make blue glass, sheets of glass are coated with blueprint solution.

Q: Our strip film often won't fit the blue glass. How can we remedy this?

Englander: Size is very important. Wetting the film and shrinking it often is the answer.

Q: What is the correct screen distance

for a 150-line glass screen?

Fourmier: About 7/64ths" but make tests

to be sure.

Q: What's the easiest way to run Bible paper on a 22 x 34" press?

Ferrigno: No special problems, or inks. For two-color work, run grain long (across the cylinder). Onion skin is much more difficult to run. Williams: Usually best to run paper "short grain," but there is some controversy on this.

Q: In color work how can I control the tone tones in a halftone?

Fournier: Color separations must be in balance. Use a densitometer.

Q: What caused our plates to scum after standing a few days on a V-shaped rack?

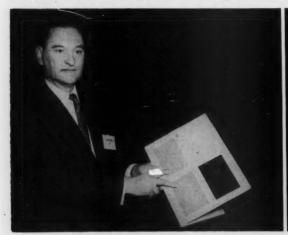
John Markey, of Minnesota Mining answered from the floor: Probably when they were stored the gum was not smoothed and there was lint in the work area. There should be no foreign material on the plate



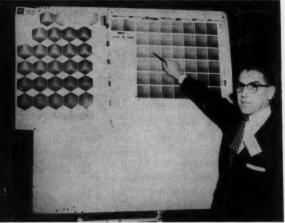
BESCO can supply most of the chemicals you'll need in your shop. Plate room, pressroom, art room and engraving chemicals are in stock ready to be shipped at a moment's notice. When you need chemicals, call the nearest BESCO office listed below.



Exhibits at LTF Research Meeting in Chicago



Frank M. Preucil (1.) supervisor of the Lithographic Technical Foundation photographic division, describes the results of LTF's research in process color reproduction at the recent research committee meeting in Chicago (see article, page 75). At right,



Michael H. Bruno, research manager, explains the difference between the original LTF color chart prepared last year and the newly revised chart, which is now ready for release to lithographers for use in their shops.

Wrenn Heads Stecher-Traung

Stecher-Traung Lithograph Corp., well known label lithographers, late last month announced election of Ralph J. Wrenn, of San Francisco, as president of the company, succeeding Charles W. Weis, Jr., who was named

board chairman. The former chairman, L. H. Jackson, was made honorary chairman of the board, and Richard Alden was moved up to the executive vice presidency, Mr. Wrenn's former post.

Mr. Wrenn joined the company 32 years ago, having held many administrative posts. The company, which has Rochester, N. Y. and San Francisco plants, recently announced a diversification program.

SENELITH

ALBUMEN SURFACE COATING

WITH

LITHOLAC AND SENETONE DEVELOPING INK

SMOOTH FIRM COATINGS

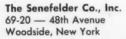


A Complete Line of Chemicals & Supplies for the Lithographer & Photo Engraver

Send for Catalog #1

THE SENEFELDER CO., INC.

Subsidiary of Philip Lochman & Co.



Telephone—Twining 9-3700 Twining 9-3701



Philip Lochman & Co., Inc. 2405 Oakton Street Evanston, Illinois

Briargate 4-2186 Greenleaf 5-6266 prior to the rollup.

Q: What is the best method for masking reflected copy for color correction?

Mazzajerri: Some shops use magenta masking; others use positive masking techniques. It depends on where you want to spend your time.

Q: Will diluting the developer help me get smoother halftone tints?

Fournier: Diluting the developer seems to help. Also, cleanliness is of utmost importance.

Q: In doing handwork with opaque, what is the best method of assuring that the opaque will hold?

Stephen Rubenstein, of Colorcraft Lithoplate Co., answered from the floor: Make sure the film is clean and greaseproof, and the opaque will hold. (It was also noted from the floor that Eastman-Kodak makes a spun-glass pad for roughening the surface of the film so the opaque will adhere hetter)

In his report on-the TV-forum, Mr. Harcke said LTF has prepared a program for Friday evening and Saturday, May 10-11, at the Ben Franklin Hotel. Several other graphic arts groups are co-sponsoring the forum, he said.

New members welcomed into the club included Joseph S. Hoffman, Frank D. Jacobs & Co.; William M. Weisbord, Regent Printing Co.; Salvatore J. Alesi, Duralith Corp.; Dean F. Flickinger, Marine Corps; Robert J. Moonan, Hibbert Printing Co.; and John A. Sullivan, Williams & Marcus.

St. Louis

Tour IPI Ink Plant

St. Louis Litho Club's March 7 meeting for members only was held at Alpine Inn. After dinner, members toured the IPI plant and watched a movie. A demonstration on how to mix inks for offset, and a talk on color blending and pigments also was given.

The April 4 meeting will be open to guests, at the Alpine Inn. The speaker, not yet announced, will talk about Minnesota Mining products and presensitized plates.

Engraver-Musician Dies

Frank (Josh) Billings, 54, a member of the group of jazz musicians known as the Mound City Blue Blow-

ers in the early Nineteen Thirties, died March 13 in New York's Roosevelt Hospital.

Mr. Billings, an engraver by trade in recent years, had been engaged since 1940 in various branches of lithography, including the staff of Litho-Art, Inc.

New Masking Material

A new dimensionally stable masking medium called "Goldenplast" has been developed by N. Teitelbaum Sons, Inc., of 261 Grand Concourse, New York 51, N.Y. The new product is a masking plastic made from vinyl. Its cost is lower than conventional masking materials, Teitelbaum stated.

The material will not stretch and cause register problems as some materials will under certain climatic conditions, the company further claimed. The material is a brilliant translucent orange color, is easy to store and cut, and has a thin base.

"COPYRITE" Rigid Plastic layout sheets 54" x 77" / 54" x 120"

The only recommended materials method (made from Vinylite) for confining and accurate register — dimensionally stable — eliminates breakage.

"COPYRITE" SAVES MONEY! CUTS COST!

"COPYRITE" Rigid Plastic Sheets expedite layout assemblies, simplify masking to produce top quality jobs.

"COPYRITE" (made from Vinylite) contains the properties that make for safer handling, easier storage and with the necessary thicknesses (.005", .010", .015", etc.) that are required for accurate reaister.

"COPYRITE"

Rigid Plastic Sheets, available in stock sizes for all presses.

20" x 50"	51 1/2" x 72"
26" x 36"	51 ½" x 74"
36" x 48"	51 1/4" x 77"
42" x 51 ½"	51 1/2" x 120
40" x 54"	54" x 72"
51 ½ " x 60"	54" x 77"
51 ½" x 70"	54" x 120"

Guaranteed Immediate Delivery

Write today for descriptive catalog featuring these quality values!

- CAVE! Up to 50%
- with N.T. S. "Lumalith" aluminum lithoplate—in all sizes up to 58" x 77".
 - GOLDENPLAST

A new ORANGE masking plastic for layouts that

"HOLDS-TO-SIZE"

- Platemaking Chemicals
- Stripping Glass
- Ground Glass for Light Tables
- Zinc and Aluminum Plates (grained & ungrained)
- "Chromeline" for Color Proofing
- Presensitized Plates in stock
 Plates & Pedlas Emploieses
- Blaclac & Redlac Emulsions
- Valutone Blue Print Powder
- Opaques & Brushes
- Static Eliminator Solutions



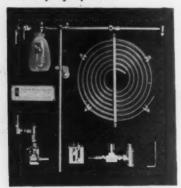


Booklet Shows Type Faces

A new booklet, "Fotosetter Type Faces," has been issued by Intertype Corp. It contains complete alphabet showings of 178 different fonts of Fotosetter type faces now available. Also shown are lower case alphabet lengths and characters per pica.

The booklet illustrates nearly 400 special characters which were produced to meet various printing requirements. Included are astronomical, ecclesiastical, medical, mathematical and tariff characters, as well as many styles of typographic ornaments, arrows, braces and box rules.

New Dry Spray Unit



"Economy" stop offsetting dry spray unit, model MPH-I-PA, manufactured by Ortman-McCain Co., is used for producing clean, offset-free work, according to the company. Compact as well as versati'c, it operates from press air, and can be set up in a few minutes, company claims. The "Economy" unit is adaptable to the fellowing presses: C & P Rice Unit. Davi 'son, A. B. Dick, Ditto, Kluge, Multilit'n and Whitin.

Improved Print Washer

An improved design of the Fisher Print Washer has been announced by the Oscar Fisher Co., Peekskill, N. Y. According to the firm, design of the washer permits 100 prints, $8 \times 10^{\prime\prime}$ in size, to be washed to archival quality in 15 minutes. The unit operates on hydraulic power alone, requiring no mechanical or electrical connections. Washing, the firm said, can be accomplished with water pressures as low as 25 lbs. a square inch.

Describe New Press

The latest edition of Harris Impressions, bi-monthly publication of Harris-Seybold Co., is devoted to the firm's new offset job press, a $14\frac{1}{2}$ x $20\frac{1}{2}$ " press. Every phase of operation and maintenance is covered in the eight-page booklet which is lithographed in two colors.

Amsterdam Issues Booklet

Amsterdam Continental Types and Graphic Equipment, Inc., New York, recently issued a new booklet featuring a one-line showing and information of type faces imported by the firm from Type Foundry Amsterdam of the Netherlands and the Berthold Foundry of West Berlin.

Hunt Markets Graph-O-Gum

Philip A. Hunt Company, Palisades Park, N. J., has announced a new product, Graph-O-Gum[®], a stabilized gum arabic solution 14°Bé.

The company said it is introducing this product only after long and thorough study of the defects common to many "gums."

To assist the lithographer in working with Graph-O-Gum, the company will provide a 6 x 3 x 2" litho grade cellulose sponge with each carton of four one-gallon bottles of Graph-O-Gum.

Hunt claims its new material has almost no odor and that it does not sour on standing. It is chemically stable and will keep plates free from blinding or scumming, not only when it is new, but as long as it is in use, the company further asserts.

Second advantage claimed for Graph-O-Gum is that it is a clear solution which never develops sludge or sediment on standing. The third advantage is that Graph-O-Gum always gives the same uniform gum film on every plate.

New Rotary Perforating Machines

The introduction to the U.S. printing and binding industries of a full line of rotary perforators, developed



Will AP 2/A

and manufactured by the E. C. H. Will Co. of Hamburg, Germany, has been announced by Amsterdam Continental Types and Graphic Equipment, Inc.

The three new Will machines, all suitable for scoring, creasing and slitting operations in addition to perforating, include a 24" economy model and two heavy-duty units, one hand-fed and one automatic. The 24" Rotary Slot Perforator is available either with its own stand or adapted for bench mounting. The Will AP 2/A is a fully automatic, heavy-duty perforating unit for high production, accommodating paper sizes up to 40" in width.

New Duplicating Plate

A new offset duplicating plate that can be prepared by photocopying was introduced March 19 at a New York press reception by A. B. Dick Co., Chicago.

Photocopying provides an extremely fast and inexpensive way to prepare an offset plate, the company claims. In less than two minutes, original material, such as printed forms or line drawings, can be transferred to a metal offset plate and the offset duplicating operation started. There is no need for darkrooms or film negatives.

The original material and a photocopy negative are placed in the exposure section of a photocopy unit, and the negative is processed in about 10 seconds.

The processed negative and the aluminum plate are next put into the developer section of the photocopier for 10 seconds. After the aluminum plate automatically rolls out of the developer, it is swabbed with a conditioning fluid and then lacquered.

As soon as the plate has been conditioned, it can be put on the offset duplicator. Up to 5,000 copies can be duplicated and the plate may be filed for re-run. The plate can be prepared on the new A. B. Dick Model 112 Photocopy Duplicator which also was demonstrated at the reception or on other photocopy machines which use the diffusion transfer process, the company stated.

New Presensitized Plate

A new low-priced sensitized aluminum offset plate, called "DupliKator" and selling for 37 cents, was introduced last month by Lithoplate, Inc., a subsidiary of Harris-Seybold Company, according to an announcement from Bert L. Menne, vice president.

"With the tremendous increase in the use of sensitized plates," stated Mr. Menne, "we felt it important to produce a high quality plate that could be sold at a lower price to the quantity user. With engineering research and the economies of mass production, we developed an entirely new kind of plate that will sell for 37 cents, less than most good metal plates now on the market.

"Our new DupliKator Offset Plate has many of the features, such as 'micro-surfacing' which are found in the large deluxe offset plates we make especially for lithographers doing high grade work on large offset presses."

3M Introduces 40x48" Plate

Introduction of a new 40 x 48" presensitized lithographic plate, plus the use of heavier gauge aluminum in other large-size plates, has been announced by Minnesota Mining and Manufacturing Co. This addition to the 3M line is designed to meet the demand resulting from increased use of lithography on larger presses, the

company said. The 40 x 48" plate is the first of its size which is machine coated for precision printing, according to Minnesota Mining.

Disposable Pallets By Mead

Mead Papers Inc. has introduced use of disposable, give-away pallets for shipment of carton packed papers. All Mead merchant distributors have been notified that shipment of carton packed papers from Mead's mills now can be made on disposable, give-away pallets. Where they can be utilized by the merchant's present warehouse facilities, they will replace the former wooden pallets.



ROLL FED LITHO PRESS & FOLDER

Especially designed for mass production at low operating cost, this popular press has been proved ideal for magazines, manuals, work books, children's books, encyclopedias, etc.

books, encyclopedias, etc.

And it's loaded with new and exclusive developments in design and construction. For example: a new adjustable plate clamp to allow close registration on color work.

Some of the other special features of this press are

- * Smooth operation at speeds up to 16,000 cylinder r.p.h. assured by printing unit engineered on a three-frame principle, mounted on a heavy
- ★ Solid forged steel printing cylinders mounted on pre-loaded self-aligning roller bearings.
- ★ Accurate settings and positive locking on all roller adjustments.

- Composition-covered ink vibrators to prevent stripping.
- Vibrator motion adjustable to facilitate split fountain work.
- Provisions for: electrically controlled side and running register. Dryer and water cooled rollers for the running of machine coated stock.

Cross and running perforation.

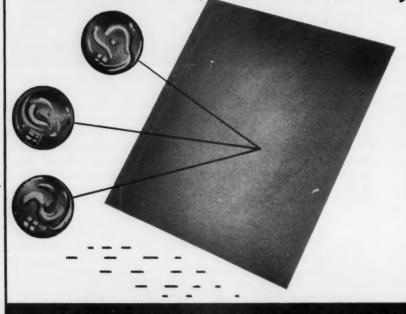
Built on the unit principle, this press can be supplied with one perfecting unit and folder. Other units can be added for as many as four or more colors, two sides. Rewinder, sheeter and special folder are also available. Standard infeed rolls stacks or automatic pasters can be easily attached.

pasters can be easily attached.

When you want dependable printing performance that cuts production time and operating costs you want a HANTSCHO press.

George Hantscho Company, Inc.

602 SOUTH 3rd AVENUE, MOUNT VERNON, N. Y. • MO 7-8200, MO 4-9080 MIDWEST OFFICE: 153 WEST HURON STREET, CHICAGO, ILL. • DE 7-3313 Wherever plates are grained



AGSCO SILICA

is accepted by platemakers throughout the country for the most exacting type of litho plate graining. AGSCO Silica is used to produce the highest quality finish by eliminating all synthetic abrasive particles imbedded in the metal.

FOR THE FINAL FINISH SPECIFY AGSCO SILICA



AMERICAN GRADED SAND COMPANY Chicago 13, Illinois Paterson 4, New Jersey

BOUND VOLUMES

of

MODERN LITHOGRAPHY

(Copies now available for the years 1938-1956)

Are there certain issues of **Modern Lithography** you need to complete your file? Would you like to check on past technical developments? Are there historical facts about the industry you would like to have on hand? The information is all yours in bound volumes of **Modern Lithography**.

A limited supply of bound volumes is available covering the years 1938-1956. Just mark on the coupon the year or years you desire and mail it to Modern Lithography, P.O. Box 31, Caldwell, N. J.

Prices per volume		Modern Lithography Box 31, Caldwell, N. J.
U. S. & Canada \$14.75	Payment Enclosed	Name
Foreign \$16.50		Street
Year: 19	Send a Bill	City Zone State

New Deep Etch Developer

The R B & P Chemical and Supply, Inc., Milwaukee, recently announced the development of Premium Ezi-Flo, a new developer for zinc and aluminum deep-etch offset plates. According to the firm, some of the features of the developer are wetting action which insures even developing over the entire plate; increased efficiency in removing unhardened coatings from image areas and reduced chances of blind plates.

Film Dryer Ready for Market

Oscar Fisher Co., Inc., 1000 N. Division St., Peekskill, N. Y., soon will market a new production film dryer, $24 \times 16 \times 82''$. The new unit is patterned after the firm's Table Top model, is fabricated entirely of stainless steel, operates on low wattage and will dry a complete load in 15 minutes. The dryer is a plug-in unit with a filtered air supply.

Westvaco Names Rehling

William T. Rehling, a sales representative of the company since 1938, has been named New York district manager, commercial printing paper sales, for West Virginia Pulp and Paper Co. Mr. Rehling joined the New York sales staff in Dec., 1955. Prior to that he served in the Chicago office for 17 years.

Companies Join Lochman

The Senefelder Co. and The Senelith Ink Co. of New York now are a wholly owned subsidiary of Philip Lochman & Co., Evanston, Ill. Both companies have been moved to new and larger quarters with greatly improved facilities, according to Philip Lochman & Co.

Lochman will handle many of the products known as Senelith, along with many new coatings.

James Harton recently joined the sales department of Lochman.

Egan Installs 14x20" Press

Egan Co., Dallas, has installed a new Harris-Seybold 14x20" offset press and is using paper plates on it in production of offset jobs for the local telephone company.

Ilford Exhibits Photographic Materials

Sketch of Ilford exhibit visitors saw at Second Biennial Photographic Exposition in Washington, March 22-31. Contained in the 800-square-foot exhibit were examples of the world-famous company's photographic materials for the graphic arts, and other fields. On the display panels were



play panels were examples of work of the world's finest photographers and photo-scientists. Both Ilford Limited of London and its American subsidiary, Ilford. Inc., were represented in the exhibit.





New S & V Plant

Ground breaking ceremonies for Sinclair and Valentine Company's new printing ink plant recently were held in Secaucus, N. J. The largest independently owned manufacturers of printing ink in the world, Sinclair & Valentine Co. expects the new 45,000 sq. ft. plant to be in production late in the year.

M. J. Leckey, president of S&V, said that this will be the largest in the company's network of 47 plants. Presently occupying close to half of

the 7½ acre site, the building has been designed with an attractive glass and metal exterior making it easily adaptable for expansion. Such adaptability will permit inclusion of other manufacturing facilities as future needs dictate, Mr. Leckey stated.

Under the direction of R. H. Scott, general manager, production will be initiated with the manufacture of gravure, flexographic and screen process inks to meet the demands of customers.

Canco Begins Installation

pher-Charles Kavanaugh.

American Can Co. has begun installation at its St. Louis plant of new facilities for processing coiled steelplate for can manufacturing. The project is part of a nationwide \$27 million expansion program.

from leading suppliers will participate

in closed-circuit TV demonstrations on paper, presswork and ink.

Committee members include the following: coordinators—James Craft

and Jack Ogilvie; registration and mailing—Lee Phenix, Henry Phillips, George Poston and Charles Wilharm; printing—A. W. Hudgins and Donald Cauley; television—Gordon Hughes,

T. R. Masters and Albert Taylor; fi-

nance-Frank C. King; cocktails-

and Anthony DeLauro; trade fair-

Donald Marquis, William Sanders

Steven Kaufman, Jack Gilbert and

Vance Jobe; program—Robert Himes,

Fred Williams and Edward Deever;

equipment and transportation-John

Baird and A. G. Copeland; entertain-

ment-Henry Phillips; and photogra-

Quality Theme of S.W. Clinic

Quality will be the theme stressed at the 7th annual Southwest Litho Clinic to be held in Dallas June 21-23, according to L. C. Burnham, general chairman. The clinic will be held in the Adolphus Hotel. It is sponsored jointly by the Dallas and Houston Litho Clubs.

Formal title for the three-day clinic this year will be "How to Print a Better Dot." Technical representatives

" Makers of Fine Offset Plates"

Graphic Arts Corporation of Ohio

110 OTTAWA STREET . TOLEDO 4, OHIO

Our thirty years' experience in color and black and white work assures you of printing plates worthy of award.

Skilled craftsmen excelling in the preparation of advertising art, commercial photography, offset press plates (all types), photoengraved and rotogravure plates combine to afford you a most complete service.



Bingham Manager To Europe

Sam'l Bingham's Son Mfg. Co. recently announced that George Shoup, Bingham's manager of production at Chicago, has been sent to Europe to study modern, European rollermaking techniques.

Kenneth Butler, vice president of the company, explained that this move is part of an exchange agreement between Sam'l Bingham's Son Mfg. Co. and several of the roller manufacturers on the continent. Once each year these European companies send either their chemical or production department heads to study Bingham's methods, and heads of Bingham's departments are sent to study European methods.

Mr. Shoup, and Mrs. Shoup, who is accompanying him on this trip, will spend approximately six weeks in Europe.

Brown Names Vancata V.P.

Joseph Vancata has been named vice president in charge of sales for the W. A. Brown Manufacturing Co., Chicago. Mr. Vancata, who has been in the industry since 1933, served on the National Production Authority Board in 1952, and was one of 12 representing the graphic arts industry. In 1954 he participated in the National Safety Conference.

Strobridge Veterans Honored

Harold A. Merten, Sr., vice president of Strobridge Lithographing Co., Cincinnati, presented watches upon their recent retirement to bachelor brothers who had worked at the plant a combined total of 105 years. Edward Sprankle, 72, had been with the firm 52 years, and was foreman of the cutting department. His brother, Arch, 69, worked in the plant 53 years, and was company cashier at the time of his retirement.

GRAVURE CONVENT

(Continued from Page 140)

Indicative of the growing of interest in rotogravure printing were figures on attendance at the Association's conventions. In 1950 only 55 persons attended GTA's first national meeting. Last year 600 were registered and this year's convention, was attended by more than 800 persons.

Concurrent sessions for packaging and publication gravure were held, with new developments in each field discussed in a variety of talks. Several joint sessions contained discussions of interest to both sections.

Lighting and color problems were touched on in several talks, with other technical reports on inline printing, cutting and creasing, photomechanical equipment, improved doctor blades etc.

On color, Carl M. Noble, Electric Eye Equipment Co. discussed color requirement controls; Carl E. Foss, color consultant, spoke on "Color for the Future"; William Lubin, of Neo Gravure Printing Co., gave a demonstration on color masking; the Interchemical Corp. film "This Is Color" was shown; Lorain Fawcett, president of Allcolor Co. gave a color presentation; and the subject of color came in for some discussion during a special presentation on lighting and viewing copy.

NAPL QUESTIONS

(Continued from Page 76)

gross profit during the year 1956 came as a result of mark-ups? How does this total mark-up figure compare with your gross profit figure? How many spoiled jobs did you do over in 1956? What part of your total mark-up for the year was used up by correcting work spoiled in process?

Small Orders

Do you know what the average dollar volume of your orders is? Do you enter many orders on which you have a net loss instead of a net profit? What does it cost you (1) to have a salesman make a call? (2) to have a boy call to pick up the copy? (3) to make up an estimate and quote a price? (4) to make up a job ticket and time forms, etc.? (5) to wrap and deliver the job? (6) to bill it, etc.? You probably accept this busi-

ness in order to keep your competitor out of your customer's office; however, what is the total cost per year of doing this? Might not the answer be to set up an arrangement under which the little lithographer down the street who has multiliths, etc., might produce all of this small short run business for you? You would then know (1) exactly what this kind of business cost you, (2) you could mark it up as outside purchases and (3) change your annual loss and headache on this kind of business to a profit.

Estimating Rates

Are your estimating rates up-todate so they include every current cost item? Are your estimating rates reviewed periodically—at least once a year—to be sure that significant changes in factory cost are reflected in the rates? Contract negotiations resulting in higher labor wage rates, shorter hours, additional welfare or other fringe benefits should be the sign for immediate review of estimating rates.

In view of the fact that profit margins in the lithographic industry are far less than those of other major industries, are you adjusting your estimating rates to reflect increases in factory cost elements so that you will retain your previous profit margins or even increase them? Do your present price lists cover-up-to-date costs? Suggest you prepare item-by-item the factors which go toward making up a sound price list to secure an accurate answer on this question.

Sales

Do you ever evaluate the sales of each of your salesmen as to (1) desirability? (2) volume? and (3) profit?

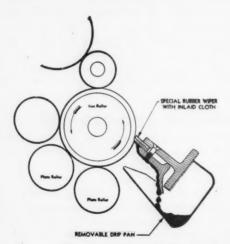
Selling Prices Vs. Costs

Do you know where you make or lose money? Ever try setting up a sales record to show the selling price and the cost of sales on every job?

Have you ever computed your plate making costs? Might it be cheaper to purchase your plates on the outside if service is available? Also, how about your composition, retype, dot



A Press Washer Built to Do a CLEANER Washup



The International Press Cleaner does the best job for you—experience has proven this to be true.

We manufacture efficient cleaners for the following makes of presses—Harris Offset and Rotary, Miehle Offset and Rotary, Hoe Tin Decorating, and Ebco.

Leading lithographers, and metal decorating establishments have made our cleaners standard equipment in their pressrooms.

We are ready and willing to back up our claims with a 30 Day Trial of our cleaners. Write and let us know the size and make of your press.

THE INTERNATIONAL PRESS CLEANER & MFG. CO.

112 HAMILTON AVENUE

CLEVELAND 14, OHIO

etching, and various bindery operations? Is this service available outside your plant at lower costs, taking into effect your possible low productivity in these departments?

Did you set up and carry through on a sound advertising program last year? Were the advertising pieces issued on time? Was the quality the best you could produce? Was copy good, bad, too long, too short? Did you measure the effectiveness of each piece of advertising sent out? Did you issue a big brochure . . . an expensive piece which cost far too much and which was too big for the buyer to put into his desk drawer? If you looked for it now, would you find it covered with dust on the very topshelf of the buyer's library? Do you have a sound advertising program lined up for 1957?

Budgeted Hourly Costs

Do you have up-to-date budgeted hourly cost rates based on specific items of cost in your plant?

Working hours have shortened during the past year or two. Wages, too, have increased considerably. Almost

(Continued on Page 165)

LTF RESEARCH

(Continued from Page 75)

George Jorgensen; pick tester studies, Mr. Borchers; hygrometer studies, William Lyon; dampening studies, Wayne Schmuhl; inkometer studies, Mr. Borchers; instruments, etc., Mr. Bruno.

Financially, the research work is in fine shape, Mr. Bruno reported. The research budget for 1956 was \$162,350 and total expenditures were \$155,619. In addition to operating well within its budget, the research department also accounted for more than \$6,000 more income than was expected. For 1957 the Board of Directors has approved a budget of \$170,650, he stated.

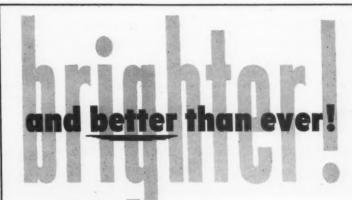
New Equipment

When the Chicago Lithographic Institute moved from Glessner House, Mr. Bruno said, 4,360 square feet of space became available for expansion of the Foundation's research facilities. Among new equipment installed was a three-ton air conditioning outfit for a new paper and ink laboratory. A second camera and dark room have been set up, a new plate room is being built, all presses have been consolidated in one room and other changes are under way which will increase operating efficiency.

One major addition to facilities during 1956 was a 22 x 34" two-color press, lent by the Harris-Sey-bold Co., which will now permit re-

search work to be carried out that has been delayed for years. An old 18 x 20" Directoplate proof press also was received, with numerous other gifts or loans of various pieces of equipment.

Still badly needed, he added, is additional deep etch plate making equipment and a power paper cutter. Total new replacement value of equipment now in use he placed at \$225,513.13, of which the value of the loaned equipment amounts to \$127,714.18.*



THE NEW NATSCO "HI-INTENSITY" LIGHT!

New Brightness! You get finer color separations . . . improved high intensity cold cathode grid gives constant color temperature and uniformity of light never before possible.

New Speed! You get quality results with one-third less

exposure time . . . and it's ready for action at the flick of a switch, without annoying warm-up or flicker.

New Size! You get full coverage on a 20 x 24 negative with the new 24 x 28 size. Other sizes from 18 x 22 to 32 x 36.

JUST CALL Circle 5-8822 in New York WAbash 2-6440 in Chicago



There's no test like your own test...so why not try this amazing light in your own shop for 10 days at our expense... no obligation!

or: Write

National Steel & Copper Plate Co.

653 Tenth Avenue New York 36, N. Y. 700 S. Clinton St. Chicago 7, Illinois

Make this Label

IT REPRESENTS

High Quality

Skilled Union Labor

"Trouble-free" Service



YOUR buying guide

Our Association members are pledged to rigid standards in the interests of the Industry. For that very reason, your safest bet on re-grained plates or new metal is *The Plate That Bears This Label*. When you see it, you know you're looking at the best.

American Litho Plate Graining Company Automatic Plate Graining Corporation Graphic Plate Graining Corporation, Inc. Lithographic Plate Graining Co. Of America, Inc. City Litho Plate Graining Company Lloyd Plate Graining Company Mercury Litho Plate Graining Service Willy's Plate Graining Corporation

MEMBERS OF THE

LITHOGRAPHIC PLATE GRAINERS ASSOCIATION, INC.
220 West 42nd Street New York 36, N.Y.

SERVICE PLUS QUALITY!

HAS MADE OUR PLANT THE WORLD'S FINEST

Specializing in very <u>fine</u> grains for color and process work.



All Sizes ZINC and ALUMINUM PLATES

Ungrained-Grained-Regrained



35-51 Box Street

Tel. EVergreen 9-4260-4261

Brooklyn 22, N. Y.

NEW SUBSCRIPTION ORDER

MODERN LITHOGRAPHY

□ 2 YEARS FOR \$5° OR □ 1 YEAR FOR \$3°

FIRST CLASS PERMIT No. 80

CALDWELL, N. J.

BUSINESS REPLY CARD No Postage Stamp Necessary If Mailed in the United States

POSTAGE WILL BE PAID BY

MODERN LITHOGRAPHY

P. O. BOX 31

CALDWELL, N. J.

PIA

(Continued from Page 73)

Horace Hart, of the U. S. Dept. of Commerce, who told of the government services available to the rotary forms printer. At next day's luncheon C. C. Means, PIA director of member and public relations, spoke on services available through PIA. John H. Doesburg, general counsel, Master Printers section, PIA, also spoke of the activities of the industrial relations section.

Materials Handling

The panel discussion on materials handling turned up some interesting observations. Moderator Samuel Isaacs. Samuel H. Isaacs Associates. Buffalo, estimated that a litho firm doing a \$750,000 a year business might expect a gross profit of \$52,-000. "Of this amount, however," he asserted, "poor materials handling could cost as much as half the amount. or \$26,000." On the other hand, he pointed out, a saving of \$25,000 as a result of improved materials handling would be a much easier way of increasing the company profits than by trying to sell the additional business required to produce a similar

"Despite the many advances of the industry, materials handling is being overlooked," he declared.

Equipment

M. J. Drackett, Clark Equipment Co., Battle Creek, Mich., spoke on selection of materials handling equipment. Such things as type of material, frequency of use, type of storage facilities and condition of raw material all must be taken into account, he cautioned, if a wise choice of equipment is to be made.

Bert Woldring, Rapids Standard Co., Grand Rapids, Mich., discussed a new concept in materials handling known as the "Mechanical Accumulator." It means simply a handling point which may be a rack, bin or other storage center that differs from conventional models in that it is based on a "first-in, first-out" basis.

Material is never handled from the time it is placed in the accumulator until it is required for production, he explained.

Action was taken by the section's executive committee to make \$9,000 available to PIA which will provide a staff man with secretarial help at the Washington, D. C. headquarters to serve the rotary business forms section. Half of this sum was raised by voluntary pledges from members of the section and the remainder was taken from surplus funds in the section's treasury.

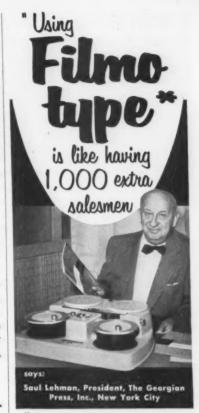
Bayard Shumate, head of Shumate, Inc., Lebanon, Ind., was elected president of the rotary business forms section. New vice president is C. C. Barfield, of Harry Barfield & Co., Atlanta, Ga.; new secretary, Gordon Rohde, Reynolds & Reynolds Co., Dayton, O., and treasurer, Marvin Gale, Gale Printing Co., Caro, Mich.★

3-COLOR LITHO

(Continued from Page 68)

for the 4 minute development and .4 for the 2 minute development. The exposure has been the same in each case and the developer concentration the same; we have changed only the developer time and yet look at the difference in gamma. We can conclude from this that the contrast of a separation or a mask is mainly controlled by the developer time (or the developer dilution, which is quite comparable). If we develop for a long time we get a gamma approaching 1, and by reducing developing time we reduce gamma and consequently we get a lower contrast. Generally speaking, continuous tone separations from transparencies are developed to a gamma of about .8 to .9 and masks to a gamma of .2 to .4.

The important point to remember about gamma is that it is a figure which tells the contrast of the reproduction. A gamma of one indicates a perfect reproduction of the original. Below one indicates a flatter image than the original and above one indicates a higher or more contrasty image than the original. Gamma is the technician's way of expressing



* America's leading photo-composition machine . . . almost instantly produces quality hand lettering and display type.

"Our salesmen are always equipped with the full set of Filmotype lettering catalogs. These include over 1,000 styles and sizes of Filmotype faces. And it's like having 1,000 extra salesmen! We show our customer the all-inclusive selection. He chooses the alphabet he wants. Then in production it's a matter of minutes to insert desired fonts into the Filmotype machine, set the copy and produce proofs perfect for paste-up. Filmotype gets us more printing jobs and more profit per job!"

- Easy operation! Anyone can produce Filmotype proofs.
- Automatic color spacing for exact letterspacing.
- Desk-top size. Fits on any table or desk. No special facilities needed!

Filmotype catalogs prove that there's a Filmotype alphabet for every printing job . . . alphabets that sell for you!





Get complete details' . . . mail this coupon

the FILMOTYPE corporation DEPT. ML 7500 McCormick Blvd. 3kokio, III.

- Send information about the Filmotype Photo Composition Machine and how easy it is to own.
- Have your representative give me a demonstration right in my own office. I understand there is no obligation.

NAME			_
FIRM			
ADDRESS			
CITY	ZONE	STATE	

William Gegenheimer Honored On 80th Birthday



Friends of William Gegenheimer, president of William Gegenheimer Co., Brooklyn, recently honored him on his 80th birthday with a luncheon at Cavanaugh's Restaurant, N. Y. Pictured are, seated, l. to r., Phil Konecky, Ted Bielitz, Harvey Glover, William Gegenheimer, Harold Gegenheimer, Fred Gay, Robert Schmid and Ted Broadston. Standing l. to r., Fred Adame, Herb Brooks, Bernie Rosenstadt, Bill Stevens, Walter Soderstrom, Lee Rosenstadt, Al Rossotti, Harris W. C. Browne, Bill Recht, George Swart, George Walsh and Bud Reed.

WILLIAM GEGENHEIMER, nationally known as one of the pioneers of offset lithography, was honored on his 80th birthday at a luncheon given by a score of his many friends at Cavanaugh's restaurant in New York on March 11th.

A "This Is Your Life" type of script was used to dramatize the highlights of Mr. Gegenheimer's career in the graphic arts, which began more than a half-century ago when he first ran an old kieker press, and included the invention of the Baldwin press washer and Baldwin ink fountain agitator used today on letterpress equipment and corrugated printer/slotters as well as on offset presses.

During his career, Mr. Gegen-

heimer learned at first hand many phases of the graphic arts. He erected some of the first Harris presses (50 years ago, the firm was the Harris Automatic Press Co.); worked for the manufacturer of the Kellogg Rotary Lithographic Press, in 1909; learned about platemaking while associated with Gus Parker, founder of the Parker Metal Decorating Co.; and worked in the ink industry.

In 1918, Mr. Gegenheimer started his own firm for rebuilding presses in Baldwin, L. I., and 10 years later invented the Baldwin press washer. This was followed shortly by the development of the Willard Press, an accomplishment in which he was aided by his son Harold.

At the end of World War II, the Willard Press was sold to the Electric Boat Co. and renamed the EBCO. Today, the William Gegenheimer Co., Inc. manufactures and distributes throughout the world Baldwin press washers, ink fountain agitators, water levels, and water stops. Additional manufacturing and office facilities are being built alongside the present plant.

Schultz

DEEP ETCH

CHEMICALS

Leading litho plants have been standardizing on Schultz Chemicals for over a decade.



SCHULTZ DEEP ETCH CHEMICALS

1240 W. Morse Ave..

Chicago 26, III.

NEW

A TRANSPARENT ADHESIVE TO REPLACE TRANSPARENT TAPE IN MOST CASES

NO MORE — Out of Contact

NO MORE — Staging Out tape marks

NO MORE — Shifting out of register

NO MORE — Gooey flats

You can store layouts and re-use them. They stay in perfect register.

NO-TAPE is economical to use.

NO-TAPE can be removed anytime without injury to film.

Send a Dollar or check for generous size tube. Regular shipments 6 tubes for \$5.00 on open account.

Scientific Litho Products Co.

2811 Philmont Ave. • Huntingdon Valley, Pa.
PHONE: Chapel Hill 2066
MANUFACTURERS OF LITHO SPECIALTIES
AGENTS INVITED

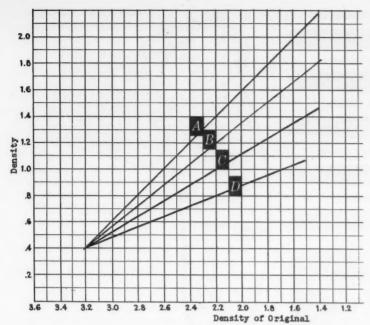


Figure 9. This diagram illustrates the effect of development on gamma, As the developing time is decreased so is the gamma. Basic principle is that density generally is controlled by exposure. Controlled controlled by developing time or dilution. Curve A represents a gamma of 1.8, with development of eight minutes. Curve B has a gamma of .8, with development of six minutes. Curve C has a gamma of .6, with development of four minutes, and Curve D has a gamma of .4, developed two minutes.

contrast.

It is suggested that you refer to film manufacturers' data sheets for an illustration of the effect of developing time on gamma and the rec-

Figure 10. Photocolor Model B-3 Projecright in Trotocolor model by Princeton Polychrome Press, Princeton, N. J. Direct three color projection type camera. Sold with complete accessories for direct separations from transparencies up to 5" x 7".



ommended developer time for various types of color separation work.

In the past few years there have been a number of cameras designed specifically for three color direct separation work. Some of these cameras with notations of their characteristics, are shown in Figure 10 and

Figure 11. Short Run Color Corp. process camera Model 6. Direct color separation camera for transparencies up to 4" x 5". Various accessory equipment available. Manufactured by Short Run Color Corp., Cleveland 14, O.





K-5

K-5

K-5

K-5

K-5

3-in-1 "Take-One"

3-in-1 "Take-One"

Super-stickin' KLEEN-STIK helps relieve the customer of the heavy work in this novel "shelf-talker" for LESLIE SALT CO., San Francisco. Equipped with two heavy-duty strips of this modern moisture-less adhesive, it's e-a-s-y to attach to store shelves with a simple peel-and-press. Customers merely take a slip from one of the three pads (for Fine, Medium or Coarse Water Softener Salt)—and exchange it for a 50-lb. bag as they leave the store! This labor-savin' device designed by HONIG-COOPER agency... produced by MAJORS & MATTOCH CO., S.F. lithographers.

Outstanding P.O.P. Ideas Featuring the World's Most Versatile Self-Sticking Adhesive!



Flashy Foil Fivesome

Flashy Foil Fivesome

If a good P.O.P. sign helps sell beer, five should sell even more! That's what ESSLINGER'S, INC., Philadelphia brewer, figured—so they had E DWARD NASSAN & ASSOC. create this colorful comboniculating a "We Do Not Serve Minora", a price sticker for the 6-pack, and a "Please Close" pointer for use on refrigerator case doors. DIAMOND PRTG. & LABEL MFG. CO. did the entire group in eight colors on special heavy-weight KLEEN-STIK Gold Foil—so they go up anywhere... stick tight... go up anywhere . . . stick tight . . and sell!

Make sure your customers know about KLEEN-STIK— the valuable "extra" that builds extra business for you. Write today for your big free "Idea Kit".

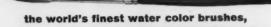
KLEEN-STIK Products, Inc. Pioneers in Pressure-Sensitives for Advertising and Labeling

7300 W: Wilson Ave. . Chicago 31 III

7

X.5





are the choice of exacting artists



because they are painstakingly made



from finest pure red sable hair.



Available in sizes 000 through 14.

the world-wide standard of IMPORTED quality that all can afford



Canadjan Agents: THE HUGHES OWENS CO., LTD. Head office, MONTREAL Californian Distributors: THE SCHWABACHER-FREY CO., SAN FRANCISCO

Schultz

Proved dependable and economical in leading litho plants for more than a decade. You, too, will find it profitable to standardize on Schultz Chemicals for all your deep etch requirements.



SCHULTZ DEEP ETCH

1240 W. Morse Ave., Chicago 26, III.



Mou need these two aids to lithographers! Suthiome SCREEN TINTS

priced for one-time use

D

It is impossible to reproduce the true value and quality of ByChrome screen tints by letterpress!

By Chrome Screen Tints are available in both 133-line and 150-line . . . the only half-tone tints of such quality and wide tonal range priced for one-time use. Here's top-quality at rock bottom prices.

\$50.00 per 1/2 dozen \$90.00 per dozen \$10.00 singly

THE By Chille PUNCH-AND-REPEAT SYSTEM

This high-precision step-and-repeat system offers the low-cost way to speed production and cut costs.

The ByChrome Punch-and-Repeat Machine precision registration

for only \$69.50

ByChrome die-formed brass Register Pins



Only \$6.70 per dozen for 1/4" size

e of your authorized ByChrome dealer Chrome

COMPANY, INC. Box 1077, Columbus 16, Ohio

11. Of course, working with this equipment is ideal for direct separations, but the typical darkroom cameras, with notations of their character-copyboard will work just as well. You will encounter difficulties of course when working with transparencies smaller than 4 x 5 inches.

It is quite difficult to give here a list of all equipment needed for color separation, but below is a recommended list of the most important items, excluding the camera:

- 1. Densitometer.
- 2. Film gray scales (such as LTF scale).
- 3. Trays, thermometer, safelights (Series #3), film, color filters.
- 4. Contact light source for adaptation of color filters.
 - 5. Temperature controlled sink.
- 6. Light integrator, such as Luxometer or Essar if camera is used.
 - 7. Neutral gray screen.
- 8. No doubt you can improvise on some of this equipment, but the densitometer is something that you cannot do without.

In the next article, we will go into the theory behind masking and the making of both highlight and principal masks.★

KEEPING PACE

(Continued from Page 72)

from images projected directly on the coated plate surface. The complete processing cycle is less than a minute, even under laboratory conditions.

RCA and a number of companies licensed under its inventions in this field now are engaged in additional research and development to improve the basic Electrofax system and to broaden its application to new uses. During the past year the first commercially available electrophotographic paper was announced. Two pieces of equipment using the process already have appeared on the market. One is a trace-recording instrument producing up to 24 galvanometer traces at a high writing rate; the other is an automatic microfilm enlarger producing fifteen 17 x 22" enlargements per minute from 35 mm. microfilm. Many other developments

in this field are expected in the near future.

Through use of combinations of standard direct Electrofax printing and the Electrofax high-speed resist technique, a large number of unique decorating effects have been achieved. These include such specialized items as flock and glitter printing, raised print, fluorescent and luminescent effects and the like.

Letterpress Makeready

There have been important developments for the letterpress printer in premakeready and makeready. These advancements are due particularly to the research efforts of Vandercook and 3M. Research activities by the Lithographic Technical Foundation have produced many new materials and techniques.

I hope this survey of some of the new developments will encourage you to keep pace with progress and that it will help you to realize the amount and diversity of the work going on to improve our position in a changing world.

Whether you own your own printing plant or not, you should remember that you have a direct personal stake in the future developments in the graphic arts field. With steadily rising labor costs a long term trend, improved production methods are a necessity. The goal is two-fold. It is the production of a better product together with a reduction of cost. Great insight and experience are necessary to attain this objective.

The approach must be based on three foundations. The first is the possession of a broad knowledge of what has gone before; thus, it is important that you keep up to date with all that is going on in your field. Secondly, you must be familiar with the work of your competitors and suppliers and with your current market. Third, you must support, in some way, the research that brings about technological advancement.

Individual plants, of course, cannot do these things alone. That is why they have the Research and Engineering Council of the Graphic Arts Industry. The Council strives to keep its members up-to-date on printing developments, competition, suppliers and the current problems. It does this through a quarterly publication, The R. and E. Coordinator, and the publication of special reports and proceedings of the Council.

In the field of research, it coordinates and guides such efforts from the standpoint of plant management, and thus offers the individual plant an opportunity to take part in and support the technological advancement of the industry. In other words, membership in the Research and Engineering Council keeps you abreast of developments and offers you an opportunity to encourage and take part in the research efforts that are so necessary for our industrial prosperity. Research is not only the other fellow's business; it is your's, too.*

TECHNICAL BRIEFS

(Continued from Page 98)

26, 28, 30 (3 pages). The method of designating F stops on process lenses is described. Methods of determining the halftone screen distance are given.

Making Even-Tint Negatives with Contact Screen. The Inland Printer 138, No. 2, November, 1956, p. 55 (1 page). Lithographic Technical Foundation—Research Progress #36, July, 1956. A method for making even tint negatives developed at LTF is discussed. The camera vacuum back is used instead of a contact printing frame to avoid Newton rings, dust specks, and poor contact. To avoid unevenness, the use of a two step method using a softer developer for the first negative followed by a contact print made from this negative is described.

PHOTO CLINIC

(Continued from Page 85)

and adapt one from another manufacturer. As a last resort, you can have a machine shop construct one for you. A design and full details for making your own are given in a booklet published by the Graphic Arts Division of Eastman Kodak Company.

Exposure Ratios

Q: When we expose and process separation negatives to obtain density ranges other than the established standard we notice that the ratio of exposure and development times differs radically from that of the standard. Is this to be expected or are we

Weit

E-Z to Assemble OFFSET PLATE RACK

S3900 per pair

Arms are 22½" long . . . Back plate is 10" high No. 3 Hooks (to hold plates) \$4.00 per 100 Box of 500-\$17.00

Write for free catalogue, today!

Will hold up to 250 offset plates safely and readily accessible for re-run orders.

Just bolt a pair of these heavy tubular steel arms to the wall and presto, you have a complete offset plate storage rack. No more searching for plates.

Specialists in Offset Plate and Negative Storage Equipment

FOSTER MANUFACTURING COMPANY • N. W. Cor. 13th & Cherry Sts., Phila. 7, Pa.



By eliminating static on your equipment—web or sheet fed, offset or letter press, folders, bag machines, etc., your production becomes smooth and uninterrupted. Quality is improved. Register is sharper. Jogging is neater...folding more accurate. Tearing and spoilage is eliminated. Oxy Cold Bar neutralizes all types of stock...operates electrically with absolute safety. No shock...no spark! It's compact and can easily be installed at the trouble spot.

Send us specifications of your equipment for full information and proposal.



Colight

FOR THE LITHOGRAPHER

- EXPOSURE FRAMES
- STRIPPING TABLES
- VACUUM FRAMES
- FILING CABINETS
- CONTACT PRINTING LAMP
- EQUIPMENT FOR OFFSET SHOP WRITE FOR FREE CATALOG, DEPT. 5

COLWELL LITHO PRODUCTS, INC. 402 Chicago Ave. • Minneapolis 15, Minn.

MAKERS OF THE
FINEST QUALITY COLOR PLATES
FOR
OFFSET
LITHOGRAPHY



THE

STEVENSON

PHOTO COLOR SEPARATION CO.

400 PIKE STREET

CINCINNATI 2, OHIO

doing something wrong?

C. G. S., MILWAUKEE

A: Photographic emulsions generally do not respond to different colors of light in precisely the same way. The gamma value of a panchromatic material varies with the wavelength of the radiant energy causing the exposure. In separation photography we are exposing the sensitive

plate or film to several different groupings of wavelengths. To achieve a uniform gamma for the various colors, we must adjust the time of development of each negative to compensate for the inherent gamma difference of the emulsion. A change in density range is, in effect, a change in gamma.

The change in exposure and de-

velopment ratios which a change in gamma entails may be explained as follows: The filter factors may vary with gamma, thus introducing a change in the exposure ratios. Timegamma curves of a set of filtered test exposures generally are displaced and not of the same shape. Hence a difference in the development ratios at different gammas.*

ROCHESTER POLYCHROME

(Continued from Page 63)

aration and platemaking work to another established three-color lithographer. In this way, the new three-color lithographer can estimate the market for pleasing color in his area and adjust his equipment investment accordingly. Much of Rochester Polychrome's three-color work comes from supplying separation negatives and plates to the trade.

With the introduction of a larger-sized Kodak 150-line contact screen, we were able to make separations up to 18 x 22" from transparencies, which in turn became a natural for the Miehle "29."

Capsule Case Histories

Theoretically, there are no limits to the markets now available to the offset color printer specializing in pleasing color. It's a snowballing operation. For example, the field of color advertising inserts alone, in "penny savers" and in mass circulation trade magazines, probably is a multi-million dollar market.

At the present time, we have customers in Switzerland, Germany, Canada, France, and Caracas, Venezuela. Distance is no barrier; the nature of the three-color process is so simple that submission of proofs, color correction and quoting can easily be performed via telephone and mail.

For example, one of Rochester Polychrome's leading customers is situated 35 miles from Rochester, considerably more than walking distance. According to J. Richard Keagle, advertising manager for Home Decorators, "the success of our business—the direct distribution of fine table appointments through a sales organization of approximately 4,000 Counselors—is dependent upon our ability to put together many diverse elements into a successful promotional program. As a part of our continuous contest program to stimulate our sales organization, we offer free merchandise as incentive rewards for top notch sales performance.

"The more attractive we can make the incentive, the harder our people will work to win. With the recent introduction of pleasing color to our incentive mailings, there was a marked up-turn in sales as contrasted with the corresponding period in previous years. Pleasing color doesn't deserve the full credit, of course, but as a vital

part of our overall promotional effort, it contributed substantially to the success of our program."

Another case in point is Sarah Coventry, Inc., of Newark, N. Y., a leader in the fashion jewelry field which sells a wide line of quality costume jewelry through fashion show-parties in the home. The company had a first-line photographer shoot 35mm Kodachrome transparencies of its entire line of fashion jewelry. We prepared a set of pleasing color 4" x 4" Cardex which show the company's line to good advantage.

It is not only the small to medium-size manufacturer who is the pleasing color printer's best prospect. The large, diversified company also is a fertile field for three-color sales. R. T. French & Co., of Rochester, manufactures a wide line of seasonings and pet foods. The company decided to arm its international sales force with pleasing color reproductions of various product lines. The press runs were short, generally ranging from 200 up to 2,000. Conventional color costs to do the same job would have been exorbitant. In addition, black-and-white reproductions simply didn't do justice to the products. For the first time, limited-quantity sales aids could be produced in color. The result was that three-color stepped in and gave R. T. French's international sales program a high-powered shot in the arm.

With the use of larger presses, a whole new dimension in pleasing color has been added to the basic "no-proofs-offset-duplicator" starting point for the three-color process. Longer press runs, in some cases up to 50,000, are not unusual. In addition, the customer will receive a finished job that is as near facsimile color reproduction as is possible with three-color techniques, because of the more critical register capabilities and variable ink flow feature of the larger presses. Net result is that the three-color printer can offer an impressive line of services — ranging from 200 pleasing color postcard mailers to a firm's annual report enlivened with near-facsimile color reproduction. To sum it up, the customer is buying three-color printing at two-color prices.

Perhaps at this point I should inject just one word of warning. Once a printer gets into pleasing color, he will soon find that he's got a cyclone by the tail. For the color lithographer who learns the trick of supplying customers with truly top-notch pleasing color, business will increase rapidly. From the small one-man business, to the large corporation, the market is hungry for low-cost, quality color reproduction.



NEW MODELS BREAKING ALL RECORDS

Profit records for YOU . . .
NEW FEATURES

greatest advance in Folder history . . . doubling your net profits...for instance,

2 folded signatures (from a single sheet fed into Folder) now come out where one came out before—of course in 1 automatic operation. And . . . from a single sheet fed into the Folder—you can have two separate sheets collated and folded together . . . of course in 1 automatic operation.

Thanks to you for ordering \$50,000,000. of BAUMFOLDERS, volume production keeps prices down . . . even in these days of high labor costs and high material costs, you can still install a 17½ x 22½ Automatic Bindery complete in one compact life-time "Gold-Mine" . . . that folds; cuts; scores; perforates; collates, etc., etc. for only \$85. initial and \$47. a month. It will pay-for-itself many times over before you pay for it. No finance charge . . . just simple interest. And other sizes comparable pay-for-itself terms 14 x 20" or 22 x 28" or 25 x 38" or 31 x 46-60".

RUSSELL E. BAUM, INC.

615 Chestnut St.

Phila. (6), Pa.

P.S. Someone said—"he benefits humanity who makes two blades of grass grow where one grew before."

Production speeded... quality control improved



CHICAGO
LITHO PLATE
GRAINING CO.

A COMPLETE COLOR OFFSET SERVICE

PLATEMAKING & GRAINING SINCE 1922

549 W. Fulton Street, Chicago 6, Illinois Telephone: STate 2-8590

Brevities

MARSHALL R. MODERY has been named chemical process supervisor of the Ozalid Division of General Aniline & Film Corporation in Johnson City, N. Y. Joseph E. Frederick has been appointed manager of sensitized material quality control by Sheffield S. Campbell, quality control manager.

PRINTED MATTER placed sixth among the top cargo commodities carried by United Air Lines in 1956. according to R. L. Mangold, manager of cargo sales.

HARMAN COLOR PLATE, formerly Frank Harman & Associates, 2420-30 W. Sixth St., Los Angeles, has announced the firm's name change. New services added to the trade shop include black and white halftones, veloxes and photocopy.

CHAMPLAIN Co., Inc., Bloomfield, N. J., has appointed Frederick G. Auer as a vice president of the firm.

ML

ARTHUR CHAPLIN has been named a vice president of Reinhold-Gould, Inc., New York, it was announced last month at a dinner in honor of Harry E. Gould, president of the company.

ML

McKinley Litho Supply Co. Cincinnati, recently named Albert Wernersbach as sales representative in that area.

ML

GRAPHIC ARTS SQUARE CLUB of Greater New York conducted its annual dinner dance March 16 at the Waldorf-Astoria Hotel.

MI.

TRINITY LITHOGRAPHERS, INC., New York, has been granted a charter of incorporation, listing capital stock of 100 shares, no par value.

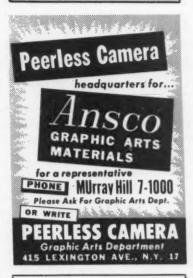
LANSTON MONOTYPE Co., Philadelphia, recently appointed Louis Bentzman as chief engineer. Mr. Bentzman formerly was chief engineer and plant manager for Saxony Electronics, Inc., Wilmington.

LOCAL BUYERS GUIDE

Look for the leading local suppliers in your area here.

Advertising rates in the Local Buyer's Guide are: \$7.50 per column inch, maximum 3 inches. Please mail copy and check or money order to Modern Lithography, P. O. Box 31, Caldwell, New Jersey.

NEW YORK



To merit an award there's always a basic reason. Engravings and plates made in our modern plant have been the foundation for award certificates

OFFSET ENGRAVERS ASSOC'TS, INC.

42-48 East 20th St., N. Y. C. Phone: ALgonquin 4-1135

Member, Lithographers National Association, Lithographic Engravers & Platemakers Association, Inc.

GRAINING BALLS

- CHROME STEEL
 ALL SIZES

E. E. BRENNAN CO.

BOwling Green 9-2127

17 South Street

New York 4

DISTRIBUTORS FOR -

ST. LAWRENCE LITHO COATED PAPERS AND

ST. LAWRENCE OFFSET

(CARRIED IN STOCK)

Cross Siclare & Sons, Inc. 207 THOMPSON ST., N.Y.C. AL 4-9760

OFFSET PRINTING TO THE TRADE

Long or short runs on sheets up to 42x58 Complete plant facilities. Union label avail-

Call GRamercy 7-6100

JOE LOCASCIO

N. Y. LITHOGRAPHING CORPORATION 52 East 19th Street New York 3, N. Y.

HERBERT P. PASCHEL **Graphic Arts Consultant**

Methods Analysis

In-plant Training Color Correction

Trouble-Shooting Systems 118 East 28th St .- New York 16, N. Y. MUrray Hill 6-5566

GUARANTEED SERVICE MAINTENANCE & REBUILDS **EQUIPMENT BOUGHT & SOLD** Complete Plants Moved or Erected

CHARLES A. FRENCH & CO WEBENDORFER PRESS SERVICE

"Known for exceptional perform

Better Results!

for

- Manufacturers
- Suppliers
- Trade Shops

with an advertisement in the Local Buyers Guide

Modern Lithography

P. O. Box 31, Caldwell, N. J.

A Complete Service to the Offset Printer

OVER 28 YEARS SERVICE TO LITHOGRAPHERS COLOR CORRECTED
NEGATIVES, POSITIVES,
BLACK AND WHITE
DEEP ETCH, ALBUMEN
MACHINE MADE PLATES

EVERY JOB GIVEN EXACTING CARE AND SUPERVISION

THE PHOTO LITHO PLATE COMPANY

113 ST. CLAIR AVE., N. E., CLEVELAND 14, OHIO

TELEPHONE CHERRY 1-7442

PUBLIC AUCTION SALE By order of owners

MACHINERY & EQUIPMENT

of FEDERAL LITHOGRAPH (O., 858 W. FORT ST., DETROIT, MICHIGAN on THURSDAY – April 25th at 11:00 A.M.

HARRIS — 23"x36" Model 234 Two Color Offset #189 HARRIS — 35"x45" Model 245 Two Color Offset #202

(Both cam feed and in excellent condition)

MIEHLE Model 57 Two Color Offset #18,889
MIEHLE 54 Single Color Offsets (Two)
RUTHERFORD 48" x 59" Step & Repeat Machine
SEYBOLD—36" & 64" Paper Cutters
DOUTHITT 36" Precision Overhead Camera
ROBERTSON 31" Darkroom Camera
120, 133, 150, 175 & 400 LINE 26" & 34" Screens
S.R.C. 4" x 5" Two Way Masking Camera (New)
CRAFTSMAN 30 x 42" Line-up & Register Table
CRAFTSMAN 46 x 66" Line-up & Registered Table
3—Douthit Whirlers, 48x60, 45x58, 22x29

2-Douthitt Vacuum Frames 52x64 & 38x50 (new)

1—Douthitt 26x30 Dot Etch Table
1—Southworth Paper Conditioner
1—Mort Dampener Cleaning Machine
1—Rob-Port Dampener Covering Machine
Lots of Miscellaneous including Steel Negative

6—Layout & Stripping Tables (Steel, up to 51" x 63")

Lots of Miscellaneous including Steel Negative
Storage Cabinets; Developing Sinks; Lift Trucks; Litho Chemicals;
Lots of New Ink & Paper; Ozalid "Ozacoupler"; Air Compressor; Air Conditioner; Walton Humidifiers; Strong & MacBeth Arc Lamps; Several Thousand LITHO PLATES both Zinc & Aluminum (all sizes); Fine & Complete Office with Friden & Monroe Calculators, File Cabinets; Typewriters, and other items too numerous to list.

INSPECTION: APRIL 22, 23, & 24 - 10:00 A.M. to 4:00 P.M

If requested Auctioneer will offer plant in bulk as well as in single lot bids. It can be operated in its present location with reasonable lease for the 26,000 ft. building in Downtown Detroit.

SID WHITE

2-Douthitt Temperature Control Sinks

AUCTIONEER • LIQUIDATOR • APPRAISER
GRAPHIC ARTS INDUSTRY
132 Nassau Street, New York 38, N. Y. • BE 3-7335

TERMS: Deposit 25% Cash or Certified Check required. Catalogue Available Upon Request

M. GRUMBACHER, Inc.

477 W. 33 St., New York 1, N. Y.

NOTE: For buyers who cannot attend sale, the Auctioneer will accept bids by mail, if accompanied by certified check for 25% of total bid.



COMPLETE INSTRUCTION IN PHOTO OFFSET

Become a CAMERAMAN, STRIPPER or PRESSMAN

Black & Color Platemaking Harris
Webendorfer Multilith Davidson
Also SATURDAY CLASSES Open 8 a.m. to 10 p.m.
Choose Your Hours! Attend as Long As You Like!

MANHATTAN SCHOOLS PRINTING 72 Warren St.

(at (hambers) N.Y.C.

WOrth 2-4330

Two Minutes Walk (from City Hall

CLASSIFIED ADVERTISING

All classified advertisements are charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. One column ads in a ruled box, \$10.00 per column inch. Check or money order must accompany order for classified advertisements. Address replies to Classified Advertisements with Box Number, care of Modern Lithography, Box 31, Caldwell, N. J.

HELP WANTED:

OFFSET PRODUCTION MAN. Background in specialty printing. Fast growing modern plant producing natural color post cards. New York. Address Box 250, c/o Modern Lithography.

HELP WANTED: Experienced dot etcher. Good wages and excellent opportunity with old established company in Kalamazoo, Michigan. Address Box 251, c/o Modern Lithography.

STRIPPER, also pressman, 4 door process work on single color Harris presses. Open shop. Work and play year round in Florida. Address Box 252, c/o Modern Lithography.

PHILADELPHIA SALES REPRESENTA-TIVE for lithographer specializing in highest quality 24 and 30 sheet posters. Will consider man now handling allied non-competing lines. Straight commission only. Address Box 253, c/o Modern Lithography.

LOOKING FOR A NEW JOB?

Controller MIDWEST \$12,000-\$15,000
Production Expeditor—Offset.
Letterpress MIDWEST \$5,500-\$9,500
Foreman — Offset Pressroom —
4 col. equip. MIDWEST OPEN
Working Foreman —
Offset NEW ENGLAND \$8,000
Production Manager —
Publications MIDWEST \$7,500-\$10,000
WANTED: Cameramen, platemakers, strippers, pressmen, compositors, preofreaders, monotys, pressmen, etc. Offset Offset

GRAPHIC ARTS EMPLOYMENT SERVICE Helen M. Winters, Mgr. Dept. M-4, 307 E. 4th Street Cincinnati 2, Ohio

List Your Confidential Application With Us

SITUATIONS WANTED:

SHORT RUN PUBLICATIONS BY OFF-SET—will organize a Publication Shop or department; train key employees to produce publications and other work from manuscript copy to finished product. Hot metal, cold-type, or photographic typesetting coupled with modern camera, stripping, and platemaking techniques and high speed, quick-change roll-fed offset. Tape operation or geared vernier controls where suited. A manufacturing approach applied to short run work. Salary or fee basis. Address Box 243, c/o Modern Lithography.

WANTED: A progressive lithographer who is looking for a technical specialist to assume responsibility for plant improvement in methods, standards and control, with emphasis on color. Box 244 c/o Modern Lithography.

TECHNICAL SPECIALIST: With outstanding record of achievement as technical advisor. A unique background of practical experience in lithographic production, trouble-shooting and trade training. Interested in responsible position with progressive plant involving technical supervision and in-plant training. Would also consider commensurate position with supplier or equipment manufacturer. Address Box 245 c/o Modern Lithography.

OFFSET PRESSMAN with supervisory potentials desires position as foreman in a medium sized plant operating single and 2 color presses, located in or near Philadelphia. Address Box 246, c/o Modern Lithography.

LITHO-SALESMANAGER, VICE PRESI-DENT—Can you use a man for the top sales job? A man of strong personality, with drive and ambition, who can handle salesmen. Have outstanding record of achievement, a unique background of practical experience in quality color lithography. Have active accounts in large Midwestern City. Please contact as soon as possible, anxious to make final decision. Address Box 247, c/o Modern Lithography.

Age 40—Have been in the lithographing business 23 years. Ten years as a Pressman—Single and two color. Thirteen years in charge of Stripping, Plate Making and Camera. Familiar with 3 and 4 color process. Looking for a position in the South or out of the country. Address Box 248, c/o Modern Lithography.

TOP-NOTCH, INVENTIVE CAMERA-MAN (considerable experience also in art preparation and stripping), specialist in improved halftones, duotones, fake process or direct color separation from every type of copy; exclusive method of producing

ARE YOU OUR NEXT OFFSET PRESS SUPERVISOR?

Well-known top-quality midwest printing firm seeks successor NOW for full-time supervisor retiring in one year. Start as working foreman—step into this man's shoes. Multicolor presses. Much process printing. Fully air-conditioned department. Also need 2-color pressman. Reply Box K.

flawless uniform screen tints inexpensively. Capable of supervising art, camera and stripping departments. Now working in Midwest, seeks permanent connection with quality offset plant in California, preferably San Francisco or Bay Area. Address Box 249, c/o Modern Lithography.

FOR SALE:

Must Sacrifice—Planeta Polygraph Singlecolor Offset Press, sheet size 20½ x 28½. Print size 19½ x 27¾, 220/60/3...1952 Model. Need Room. Address Box 254, c/o Modern Lithography.

FOR SALE: 2 Modern Christensen Continuous Feeders. Sizes 42 x 56 and 48 x 70, Floor Loading Models. Guaranteed A-1 Condition. Must sacrifice. Fort Dearborn Lithograph Company, 6035 W. Gross Road, Chicago 31, Illinois.

42½ x 58½ Four Color Harris Offset, 11 years old—replacing with larger equipment—can be seen in operation. Address Box 255, c/o Modern Lithography.

HEADLINER Outfits, previous model demonstrators, with new simplified developer unit and 3 fonts, \$295. Easy terms. Barkman Printing Equipment Co., Berlin, Wisconsin.

EQUIPMENT WANTED:

Wanted to Buy—44 x 64 (Maximum Sheet 45 x 65) 1 Color Miehle No. 65 Offset Press or any parts for such press. Address Box 256, c/o Modern Lithography.



the RELIABLE Supplier to the Lithographer for SERVICE call Circle 6-3526 EASTERN GRAPHIC ARTS SUPPLY CO. 509 W. 56th ST., New York 19, N. Y.



FOR A REAL DEAL, CALL O'NEILL!

17½ x 22½ ATF CHIEF DE 3791 17½ x 22½ ATF CHIEF MAC 22 x 29 ATF BIG CHIEF 20 x 26 WEBENDORFER OFFSET PRESS #2 KELLY, AC MOTORS 40" SEYBOLD DAYTON PAPER CUTTER 14 x 22 THOMSON STYLE B 27 x 41 MIEHLE AUTOMATIC





Lithograin assures you careful and competent handling of all your graining and regraining requirements. It also features "Cronak" processing of zinc plates which gives cleaner and longer press runs. Zinc and aluminum offset plates supplied in all sizes.

TOLEDO LITHOGRAIN AND PLATE COMPANY

DRY PLATES FILM PHOTO CHEMICALS

Lenses, Contact Screens
and accessories for the camera
and darkroom

K. SCHLANGER CO.

333 West Van Buren St., Chicago 7, Ill. WEbster 7540

Call UNIFORM

for superior

PLATE GRAINING

Our service designed to meet your most exacting requirements.

ZINC PLATES — ALUMINUM PLATES Ungrained — Grained — Regraining

UNIFORM GRAINING CORP.

648 N. Western Ave. Chicago 12, III.

FAST, EFFICIENT

DRYERS

for

WEB-OFFSET

*Speed

* Production

*Economy

Dryer Specialist for over 25 years

B. OFFEN & CO.

168 N. Michigan Ave., Chicago, III.

w.D.WILSON

Fine Printing Inks

LETTERPRESS

Est.



LITHOGRAPHY

1865

5-38 46th AVE., LONG ISLAND CITY, N. Y. TEL.: STILLWELL 4-8432

ETSCO Poly Mixing Tanks

- Polyethylene—resists all darkroom chemicals.
- Poly Spigot—needlenosed for tight seal.
- Round—no seams, easy to keep clean.
 Unit consists of tank and spigot.
- **Capacity Gallons** 5 15 30 Price fob New York \$15.00 \$24.00 \$29.25 \$31.50 3.50 4.00 4.50 6.00 Cover (extra) 2.00 2.50 3.00 Floating Lid (extra)

ETSCO Master Mixers Available for All Above Tanks

E. T. Sullebarger Co., 114 Liberty St., New York 6, N.Y.

You need the best!

The best plates produce the best printing. Expert offset plate graining saves you money in the long run by permitting quality work and smooth press performance. The skill and experience of ALJEN SERVICE assures the best. Careful and competent handling of your plate problems. Zinc or aluminum plates, any size.

ALJEN ASSOCIATES

1215 Primrose Street

Cincinnati 23, Ohio

Efficiency Approved

A Film Scribing Tool

scientifically designed for Ruling Negatives



Litho Ruled Forms - QUICKER - EASIER - BETTER

- ★ Perfect uniformity of rules no film spoilage.
 ★ 6 cutting heads in set: 4 for single rules from hairline to 1-point rules; 2 cutting heads for double rules.
 - A nostcard will bring descriptive literature





Own a LUXOMETER

Find out from your dealer about the Lease Purchase plan to own a LUXOMETER. Free trial offer on your equipment — no obligation to purchase — no capital investment.



Whiting-Plover Contest

First entry honors in Whiting-Plover Paper Company's national letterhead competition have gone to the L. G. Pratt Printing Co. and the John Leslie Paper Co., distributing firm, both of Fargo, N. D.

The second annual competition will run through June 30, 1957. Any letterhead printed on Plover Bond from July, 1956 through June of this year is eligible. Twenty-four grand award winners, 12 printers and 12 paper salesmen, will receive an all-expenses paid "Wonderful Week End in Wisconsin" during the first weekend in September.

Whiting-Plover also announced the reappointment of its 1957 panel of judges. They are Robert Middleton, director of design, Ludlow Typograph Co., Howard Guernsey, Whitaker-Guernsey Studio, Inc. and Dr. Albert A. Sutton, chairman of the Graphic Arts department, Medill School of Journalism, Northwestern University.

Taylor Does Three-Color

Arnold Taylor, Inc., Dallas, now is doing three-color separations for the trade from transparencies or art work. A Robertson camera recently was installed in the shop, along with a new enlarger, an Eastman-Kodak densitometer and a complete new set of dark rooms. The company calls its method the Atco Color Process.

Taylor also is a distributor of other litho supplies.

NAPL QUESTIONS

(Continued from Page 151)

every item of cost going to make up hourly rates has increased. Therefore every lithographer should set up hourly rates based upon the economics existing in his own plant.

The vast majority of lithographers, because they lack trained personnel or for other reasons, do not maintain good cost finding systems.

Do you know what it costs you per hour to operate each department in your plant? Do you know what your productivity percentage is in each department? How much is your overtime costing you? Are you recouping this overtime cost from your customer whenever possible? Have you ever thought of including in your budgeted hourly rates an amount for overtime wage costs, particularly for departments which normally operate overtime? By doing this you spread the cost of operating non-sold overtime hours over all customers.

Production Standards

Do you have production standards set up for your plant? Did you spend considerable time setting these up without actually using them? Why?

There is nothing an employer can do which will yield him more sound management information than that of setting up his own budgeted hourly costs and production standards. Even though the employer sets up budgeted hourly cost rates and production standards these very important statistics become useless, unless they are accepted, used constantly, and kept up-to-date. Your cost man and your estimator should be thoroughly acquainted with every item which goes to make up these valuable tools of management. They should be thoroughly sold on the soundness of both the figures and the method used in setting up these measuring sticks, so that they can make them stand up, both with their salesmen and when they have been applied to customers' specifications.

Have you ever asked all of your salesmen whether they are in position to help you secure sufficient press productivity for two shifts? Two shift productivity should be a "must" when buying or running multi-color presses.

Considerable savings can be effected through the operation of a second shift, particularly in the press room, because fixed charges, such as depreciation, rent, fire and sprinkler insurance, and administration and overhead do not increase in the same ratio as the productivity of the added shift.

Purchasing

Have you reviewed your purchasing procedure recently? Are you buying the right quantity of chemicals, film, ink, paper and supplies as to (1) use, storage and (2) price. Are you standardizing on papers to eliminate small lots, etc.?

Do you use the following forms in your plant—(1) Purchase Requisition, (2) Purchase Order and (3) Receiving Report?

Are prices checked periodically?
Are competitive bids secured?

Are orders for one kind of material given to two or more vendors?

Are invoices received checked satisfactorily?

Are minimum and maximum quantity records for the best prices maintained?

Is a price file of prior purchases maintained?

Are trade and cash discounts taken where offered?

Are inventories taken periodically? The periodic review of the lithographic company's purchasing procedures is bound to have a salutory effect, resulting in a more efficient operation, a tightening-up of the purchasing, accounting and disbursement procedures as applied to all purchases, with resulting economies in time and money.

AIR CONDITIONING — Did your productivity fall off last summer because part or all of your plant is not air conditioned? Do you have any idea of what you lost as a result of not having an air conditioned plant? Should someone be planning now to air condition part of your plant for next summer's operation?*



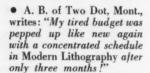
MEN OVER 40!

Get Effective Relief From Advertising Space Buying Problems!

If your company is weak and rundown and suffers from constant lack of sales, chances are its condition may be due to a simple advertising budget deficiency which we call "tired budget."

GUARD AGAINST "TIRED BUDGET!"

One way an advertising space buyer in the litho field brings on "tired budget" is to cut the budget up in little pieces and scatter it around in every magazine that has the word "lithography" vaguely connected with it. Or, he gets on the right track and concentrates in one magazine — but picks the wrong magazine! Either way makes any advertising budget very tired — and results in sick sales.







• C. D. of Black Wolf, Neb., writes: "I cured a nagging boss in only two months with Modern Lithography!"

• E. F. of Peapack, N. J., writes: "A. B. and C. D. are pikers!"



MODERN LITHOGRAPHY Leader in the Litho Field Caldwell, New Jersey

- Please rush information on the market and the magazine!
- ☐ Please rush rate card and contract blank!
- Please rush salesman!

Address

GET NEW ZEST FOR SALES!

Pick the one powerful magazine in the field — and concentrate your advertising there — where the customers who really count will read your sales message month after month after month. Repeat calls get the business. And the powerful magazine is easy to judge. Just make a check chart on all the points by which two magazines can be compared:

- 1. Most Editorial Material
- 2. Most ABC Paid Circulation
- 3. Most Advertising Acceptance
- 4. Most Readership
- 5. Lowest Cost Coverage
- 6. PRESTIGE

It only makes sense to concentrate
in the strongest book—MODERN LITHOGRAPHY!

Mail this coupon NOW!

(Nothing down and 12 easy payments of only \$170 per month)



INDEX to ADVERTISERS

APRIL, 1957

Aljen Associates	H & H Products	Offen & Co., B
American Graded Sand Co	Hammermill Paper Co	Oxford Paper Co
Amsterdam Continental Types & Graphic	Hantscho, Co., Inc., George 145	
Equipment Co	Harris-Seybold Co	Paper Manufacturers Co 98
Ansco	Herrick Ink Co., Inc., William P 50	Parsons Paper Co Feb.
Appleton Coated Paper Co	Hess & Barker	Photo Litho Plate Co
Azoplate Corp	Hill Rubber Co., Inc	Printing Machinery Co., The 138
Baker Reproduction Co	Holland Ink Corp	Rapid Roller Co 16
Baum, Inc., Russell Ernest 160	Howard Paper Co	RBP Chemical & Supply, Inc 10
Beckett Paper Co	Hunt Co., Philip A	Recht Co., William
Bingham Brothers Co 122	Ideal Roller & Manufacturing Co March	Roberts, Inc., Lewis
Sam'l Bingham's Son Mfg. Co Feb.	llford, Inc	Roberts & Porter, Inc
Bridgeport Engravers Supply Co 141	Interchemical Corp	Roll-O-Graphic Corp 28
Brown, L. L., Paper Co	International Press Cleaner & Mfg. Co 150	Rosback Co., F. P March
	The control of the co	Rosen Textile Engraving Corp 160
Buckbee-Mears Co. 156 ByChrome Co., Inc. 156	John & Ollies Francisco Co. March	Royal Zenith Corp 46
	Jahn & Ollier Engraving Co March Jomae Products Jan.	Rutherford Machinery Co 40
Cambridge Instrument Co., IncMarch	J. F. Kelly, Inc	Saltzman, J. G., Inc
Carlson Co., Chesley F		Schlanger, K
Champion Paper Co	Kimberly-Clark Corp 8, 9	Schmidt, H. & Co
Chemeo Photoproducts Co	Kleen-Stik Products, Inc 155	Schultz, H. J
Chicago Litho Plate Graining Co 160	Knox Soap Ce	Scientific Litho Products Co 154
Colwell Litho Products, Inc 158	Korn Co., Henry P	Scranton Plastic Laminating Corp March
Consolidated Water Power & Paper Co 17	Krug Electric Co., Inc 54	Senefelder Co., Inc., The 142
Consolidated Int'l Equip. & Supply Co March		Scriber Specialties 164
Crescent Ink & Color CoMarch	La Monte Safety Paper Co	Siebold, J. H. & G. B., Inc 82
Cross Siclare & Sons, Inc 54	Lanston Monotype Machine Co 131	Simeo Co
Curtis Paper Co 148	Lawson Co., E. P	Sinclair & Valentine Co
Davidson Corp	Levey, Fred'k H. Co., Inc Jan.	Strathmore Paper Co 29
Dayton Rubber Corp14, 15	Lewis Roberts, Inc 6	St. Regis Paper Co., Gummed
Dexter Folder Co 90	Litho Chemical & Supply Co 27	Products Div
DiNoc Co 70	Lithographic Plate Grainers Association,	Stevenson Photo Color Separation Co., The 158
du Pont de Nemours & Co., E. I 20	Inc	Strong Electric Corp
Eastern Corp 99	America	77 to 11 S I N 190 143
Eastman Kodak Co 105	Lithoplate, Inc	Teitelbaum Sons, Inc., N
Electronic Mechanical Products CoMarch	Macbeth Arc Lamp Co	Toledo Lithograph & Plate Co 164
Falulah Paper Co Feb.	Mallinekrodt Chemical WorksMarch	
Filmotype Corp 153	Manhattan School of Printing 162	Uniform Graining Corp 164
Fitchburg Paper Co	Mead Corp., The41, 44	Varn Products Co., Inc Marci
Flint Ink Co., HowardMarch	Mergenthaler Linotype Co 2nd Cover	Vulcan Rubber Products
Foote & van Wie Co 106	Metals Disintegrating Co 79	Vulcan Rubber Frontess
Foster Manufacturing Co	Miehle Printing Press & Mfg. Co 4	Wagner Litho Machinery Div 8
Fox River Paper CorpMarch	Miller Printing Machinery Co	Warren Co., S. D
Gaetjens, Berger & Wirth, Inc 31	Murphy, Daniel & Co., Inc	Wesel Manufacturing Co Marc
Gegenheimer Co., Wm		West Virginia Pulp & Paper Co Dec
General Plate Makers Supply CoMarch		White, Sid
General Printing Ink Co86	National Association of Litho Clubs 124	Whiting Plover Paper Co Mare
General Research and Supply Co Feb.	National Association of Photo-Lithographers 120	Willets, Norman, Graphic Supply Co 13' Willy's Plate Graining Corp Dec
Gevaert Co. of America, Inc 111	National Carbon Co., Div. of Union Carbide & Carbon Co	Willson Printing Ink Co., W. D 16
Gilbert Paper CoMarch	National Steel & Copper Plate Co	Winsor & Newton, Inc
Godfrey Roller Co	Neenah Paper Co	THE TENEDIS AND THE PROPERTY OF THE PROPERTY O
Goers American Optical Co., C. P 127	Nekoosa Edwards Paper Co	Young Brothers Co 9
Goodyear Tire and Rubber Co	New York & Pennsylvania Co March	and Marian Co
Grumbacher, M., Inc	Northwest Paper Co	Zarkin Machine Co., Inc
Gurin-Rapport Feb.	nuAre Co., Inc	Zarwell & Becker

(The advertisers' index has been accurately checked but no responsibility can be assumed for errors or omissions.)

TALE ENDS

THERE'S an auspicious cultural project on the West Coast that may utilize lithography in its execution. It's called "Poems in Folio" and has San Franciscans Gerd Stern and Ann London in charge. The announcement folder for the series (itself a fine job of offset) explains that every month the group will publish, in broadsheet form, the first edition of a new poem by an outstanding American or English poet. They will be individually designed, hand-set and printed on quality paper by various of America's fine presses.

ML received the handsome first offering of "Poems In Folio" last month, a translation from Sappho by the eminent American poet William Carlos Williams, designed and printed by the Grabhorn Press. Tentative future plans call for using lithography in the project.

Mr. Stern told ML "our primary purpose is to gain larger audiences for contemporary poetry. We feel that this can be done by attractive individual presentation, suitable for display in homes, offices and libraries. Our thought is that one poem at a time can attract and absorb those who might shy at a book or magazine full of poems."

Any lithographers interested in participating in this series might do well to write Mr. Stern at Box 448, San Francisco. Some of you long-hairs in the congregation might even like to subscribe.

ML

Mike Bruno had a bad moment on the hot seat at the LTF research meeting in Chicago last month. In introducing Mrs. Joanne Heal for a report on her studies of gum arabic substitutes, he recalled that she had become a bride just prior to last year's meeting. "As a matter of fact," he went right on, "we had this wedding and a birth very close together about this time last year." This innocently intended assertion was greeted with boisterous guffaws, but LTF's research director seemed puzzled by the derisive overtones which could be detected

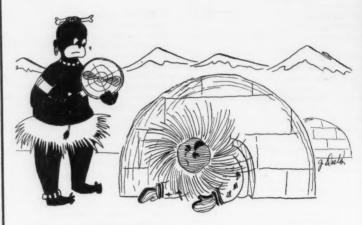
in the merriment. Quickly recovering his poise, however, he explained—what everybody knew—that the baby he was referring to had arrived very properly in the household of his right hand assistant, Jack White.

MI.

Elliott Donnelley, vice chairman of the board of R. R. Donnelley & Sons Co., was one of six citizens on whom the city of Chicago conferred Medals of Merit. The ceremony took place during a luncheon March 4, celebrating the 120th anniversary of the city's founding. Mr. Donnelley was honored for his activities as president of the Chicago Youth Centers and as a member of the South Side Planning Board Council, which is interested in slum clearance and neighborhood improvements.

Sales Resistance . . .

Break It Down with Advertising



YES, you can help break down even the toughest sales resistance with a regular month after month sales message in a magazine that is read by your potential customers. The top magazine to reach your customers in the litho field is, of course,

MODERN LITHOGRAPHY

Box 31

Caldwell, N. J.

Member, Audit Bureau of Circulations

Plan for Quality

Never let a rush job throw you. When you need fast service as well as dependable quality on coated paper, ask the Cantine merchant in your city. He knows the ropes!

Cantine's Content Supers

LETTERPRESS: • HI-ARTS • ASHOKAN M-C POLDING BOOK • M-C POLDING COVER • ZENA • CATSKILL • VELVE-TONE • SOFTONE • ESOPUS TINTS ESOPUS POSTCARD OFFSET-LITHO: • HI-AETS LITHO C.IS.
ZENAGLOSS C.2S. • ZENAGLOSS
COVER C.2S. • LITHOGLOSS C.IS.
CATSKILL LITHO C.IS. • CATSKILL
OFFSET C.2S. • ESOPUS POSTCARD
C.2S. • ESOPUS TIMES

THE MARTIN CANTINE COMPANY
Specialists in Costed Paper since 1888
Saugarties, N. Y. and New York City
In San Francisco and Los Angeles—Wytle & Devic



Harris feed roll register is hairline in a hurry

Harris feed rolls on the 23×30 " are unique in this size press. They combine big-press precision register with quick change-over, fast makeready features.

Feed rolls "pace" the sheet through a split-second sequence of stops and starts. Then, the feed rolls accelerate the sheet to a speed faster than that of the impression cylinder and "overfeed" the gripper edge against the gauge pins. Result: the same precision register at all numning speeds!

the same precision register at all running speeds!

The 23 x 30" model is also available with 3-point, tumbler-gripper register.

Fifty years of offset experience and the world's finest service organization back up your investment in a Harris. Check with your local Harris-Seybold sales representative.

For detailed information on the $23 \times 30''$ feed roll press, send for a copy of the NEW specification folder. Write or call ...





HARRIS-SEYBOLD

4510 East 71st Street, Cleveland 5, Ohio

You get more with one of the "FIRST FOUR"









